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The role of Confucianism in driving work ethic

by

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10 October 2016

STATEMENT OF CANDIDATE

I, Seung Jung Yang, certify that the work in this thesis entitled *The role of Confucianism in driving a strong work ethic*, has not been previously submitted for a degree at Macquarie University, nor has it been submitted as part of requirements for a degree to any other university or institution other than Macquarie University.

I also certify that the thesis is an original piece of research and has been written by me in its entirety. Any help or assistance that I have received in my research work, including the preparation of the thesis itself, has been appropriately acknowledged.

In addition, I certify that all information sources and literature used are indicated in the thesis.

The research, presented in this thesis was approved by the Macquarie University Ethics Review Committee, as detailed below:

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The above application was reviewed by the Faculty of Business & Economics, Human Research Ethics Sub Committee. Approval of the above application is granted, effective 29/05/2016. This email constitutes ethical approval only. This research meets the requirements of the National Statement on Ethical Conduct in Human Research (2007). The National Statement is available at the following web site: http://www.nhmrc.gov.au/_files_nhmrc/publications/attachments/e72.pdf.

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ABSTRACT

The purpose of this study is to explore the association of Confucianism, the main cultural value system in East Asia, and work ethic. Specifically, this study is concerned with examining how the Confucian pedagogical approach which focused on respect and discipline, plays a formative role in shaping the individuals' of work ethic. Study's sample collected from 412 respondents from two groups: Caucasian and Confucian orbit group (China, Hong Kong, Japan, Korea, Singapore and Taiwan). Structural equation modelling (SEM) was applied, resulting in models for the two ethnic models, establishing notable differences in perceptions of Confucianism and Confucian pedagogical approaches. This study demonstrates that 36-45% of work ethic is mediated by the Confucian pedagogical approach: respect and discipline. The results indicate that Confucian values were not wholly unique to individuals from Confucian orbit countries, however, discipline was only associated with work ethic for Confucian orbit group. Ultimately, the study establishes key differences in pedagogical approach between the two ethnic groups, as well as the mediating role of respect and discipline providing a framework for future educational research and East Asian studies.

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CHAPTER 1: INTRODUCTION

The purpose of this study is to explore the association of Confucianism, the main cultural value system in East Asia and a work ethic among the populations that are influenced by Confucianism. Specifically, this study is concerned with examining how a pedagogical approach derived from Confucian teachings (i.e. respect and discipline), plays a formative role in shaping the work ethic of individuals.

The social and philosophy literature has long been focused on Confucianism and Confucian values and it has also received attention from economists, (Landes, 2015; MacFarquhar, 1980; Rostow, 1990) since Confucian ideology has been viewed as the main reason for the East Asian economic miracle. As such, in recent years, Confucianism has been the topic of increased discourse among business and management scholars (Rowley & Benson, 2002; Witt & Redding, 2009; Zhu, Warner, & Rowley, 2007).

Confucian dynamism, a new concept proposed by Hofstede and Bond (1988) has been used to investigate economic progression in Asia (Lin & Ho 2009). The term ‘Confucian dynamism’ (subsequently relabelled ‘long-term orientation’) has characteristics such as thrift, diligence, persistence and hard work (Hofstede & Bond, 1988). Thus, Confucian dynamism has been seen as the underlying reason for the economic successes of the Asian ‘dragons’; namely Hong Kong, South Korea, Singapore and Taiwan (Hofstede, Hofstede, & Minkov, 1991; Ralston, Egri, Stewart, Terpstra, & Kaicheng, 1999). Although there has been criticism of the concept of ‘Confucian dynamism’ (Fang, 2003; Newman & Nollen, 1996; Tayeb, 2001), it has inspired scholars to bring important insights and new vision to cross-cultural studies.

Given the fact that Confucianism has had such a profound impact on East Asia in philosophical history (Yum, 1988), Confucian cultural values are considered to be instrumental for better understanding behaviours and attitudes in this region. However, culture includes not only the values held by individuals, but also the relations between families and people at work, as well as the structure of institutions and society. Views taking account of these broader factors are often referred to as institutional approaches (Rowley, 2012). As such, Confucian culture has been used to explain East Asian nations’ economic development as well as characteristics of institutions and business management practices (Wang, Wang, Ruona, & Rojewski, 2005; Witt & Redding, 2009; Zhu et al., 2007). Furthermore, Ngo, Turban, Lau and Lui (1998) noted that ‘home country culture’ is one of the major influences on human resource management practice of multinational firms. Indeed,

scholars have labelled the Chinese system of management as the management of interpersonal relationships, because Confucian culture places so much emphasis on human relationships (Tu, 1998a; Wang et al., 2005). Similarly, Ahlstrom, Bruton and Lui (2000) noted that 'connections' are the most important factor in East Asian business.

Parallel to Protestantism in the West, Confucianism has been hypothesised as providing the ideological foundation that has promoted countries' development in East Asia (Dai, 1989). Many studies have found evidence of Confucian Heritage Cultures in East Asian countries (Lee, 1996; Monkhouse, Barnes, & Hanh Pham, 2013; Wei Yao, Chris Baumann, & Lay Peng Tan, 2015). Confucian culture has influenced a certain work ethic in 'Confucian Orbit' countries such as China, Japan and Korea. This new term, Confucian Orbit, was introduced by the recent study by Baumann and his colleagues (Baumann, Hamin, Tung, Hoadley, & Okumus, 2016) which explained that Confucian Orbit countries share the Confucian Heritage Cultures whilst also have distinct characteristics from non-Confucian culture. Furthermore, it has been argued that the Confucian work ethic has played a similar role to Weber's Protestant work ethic in the West (Chan, 1996). Confucian culture with its emphasis on loyalty, diligence, thrift, education and respect for authority, is believed to have played a role in the unique development of the Confucian work ethic (Berger & Hsiao, 1988; A. Chan, 1996; Lim, 2003).

Recent studies by Baumann and his colleagues (Baumann, Hamin, Tung, et al., 2016; Baumann, Hamin, & Yang, 2016; Baumann & Winzar, 2014), demonstrated that Confucianism appears to strongly influence the way education 'works' in East Asia. These studies argue that the region's education system has guided students' behaviours and respectful attitudes, and through these, built their work ethic. Indeed, numerous studies have viewed East Asia's academic success through students' attitudes, which are derived from Confucian values (Fuligni, 1997; Marginson, 2011; Shin, 2012). In line with this thinking, Baumann, Hamin and Yang (2016) explain East Asian students' (i.e. Chinese, Japanese, Korean and Singaporean) academic success compared to students from Western countries through the Confucian pedagogical approach, which focuses on academic performance, respect and discipline.

Previous studies have explored the relationship between the Confucianism and a strong work ethic at the national and societal level. But the manner in which Confucian values relate to individuals has yet to be adequately addressed. Some studies have shown the effect of Confucianism on management practice and behaviour (Newman & Nollen, 1996; Rarick,

2007). However, only few recent studies have started to explore the micro-level in identifying the dimensions of individuals' performance and competitiveness (Baumann & Hamin, 2011; Baumann & Winzar, 2014).

This exploratory study will fill this gap by investigating how the influences of Confucianism may have specific roles in forming individuals' work ethic. Specifically, the study will consider the pedagogical approach, which focuses on respect and discipline as mediating factors. Naturally, there are many other factors that contribute to a strong work ethic such as individuals' personality and motivation. This work will represent an initial exploration and aim to lay the foundations for additional research to draw further conclusions on contributing factors.

1.1 RESEARCH OBJECTIVES

This thesis aims to investigate the influence of Confucianism on the level of work ethic displayed by individuals. As this study is exploratory in nature, it focuses on three fundamental, yet interrelated, research objectives:

1. To determine how Confucianism affects an individual's work ethic.
2. To demonstrate the effects of respect and discipline, representing a Confucian pedagogical approach, as mediators between Confucianism and work ethic.
3. To explore how two ethnic groups, Caucasian group and Confucian orbit, have different relationships to Confucianism and work ethics.

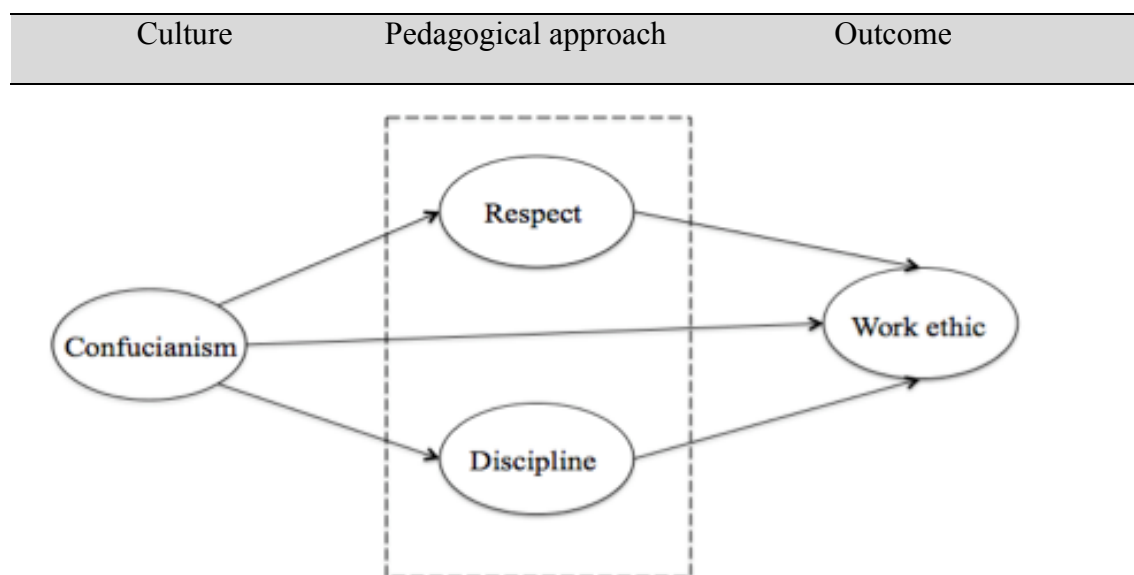


Figure 1: Conceptual Model

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

This exploratory study is an attempt to investigate the influence of Confucianism on the individual's work ethic. Given the limited research on the identification and measurement of Confucian values, this study provides a step in the direction of understanding how Confucianism may influence individuals' attitudes and ultimately their work ethic.

The literature review is organised in two sections. First, it gives an overview of the theoretical foundation underpinning Confucianism in order to demonstrate its influence on the formation of individuals' values, attitudes, behaviour and ultimately work ethic. Second, a conceptual model is proposed and hypotheses are developed to address the three research objectives of this study.

2.2 THEORETICAL FOUNDATION

2.2.1 Confucianism and Confucian orbit

Confucianism is one of the oldest ideologies. Its philosophical beliefs are based on the teaching of the Chinese thinker and educator Confucius (551–479 B.C.E.) (Fung, 1997; Lahtinen, 2015; Tu, 1998a). Confucius was renamed from the original Chinese name K'ung-fu-tzu by Jesuit missionaries (Chan, 1999). Fung Yu-lan (1997), one of the outstanding Chinese philosophers of the 20th century, compares Confucius' influence in Chinese history with that of Socrates in the West. From the Han Dynasty (206BC–220AD) to the early 20th century, Confucianism has been the dominant philosophical system in China (Yum, 1988). Confucianism is not a religion but it is a set of 'practical ethics' or a 'set of pragmatic rules for daily life derived from the lessons of Chinese history' (Hofstede & Bond, 1988). Confucianism has exerted a strong influence in the daily life of Chinese people, more so than religions such as Taoism and Buddhism because it is a present-oriented and pragmatic philosophy (Yum, 1988). Max Weber (1953) also commented, 'Confucianism is more realistic than any other system in the sense that it excludes all measures which are not utilitarian' (Nakamura, 1991, p. 16).

Confucius' teaching formed a school of ethics that emphasised the harmony of social relationships within the family and society (Lahtinen, 2015). It has been widely used by governing administrations as fundamental and formal educational tools. As such, for more

than two thousand years, Confucian values and ideologies have deeply influenced the everyday lives of Chinese people (Jacobs, Guopei, & Herbig, 1995; Xing, 1995; Yum, 1988). In Confucianism, there are five basic virtues that one has to pursue: benevolence (*ren*), righteousness (*yi*), propriety (*li*), moral understanding (*zhi*), and trustworthiness (*xin*) (Tu, 1998c; Yan & Sorenson, 2004).

Benevolence (Ren)

Ren is the first and core virtue of Confucian teaching. It is a highly moral term to love and help people. As it is the noblest human virtue, the emphasis is on being respectful, kind and generous to others (Lahtinen, 2015). *Ren* refers to the affectionate concern for the well being of persons in one's community. However, *Ren* is not same as a general humanitarian love for the general public. It starts from one's own family and home. The first of *Ren* starts from love of one's parents then siblings. Therefore, *Ren* starts from very fundamental and close relationships. As such, *Ren* can be seen as different from humanism or humanitarianism.

Righteousness (Yi)

Yi refers to the sense of righteousness. It means that human actions should be righteous, and also that one should be able to recognise non-righteous situations or things. *Yi* and *Ren* are the most basic and important virtues of early Confucianism. They are usually referred to as a paired concept, as each virtue is viewed as a condition for each other. Although *Ren* is a natural human quality, *Yi* can only be fully embodied and achieved through cultivation.

Propriety (Li)

Li signifies a sense of how one should behave and satisfy desires within boundaries, ie, behavioural norms. It encourages the development of a noble character. *Li* defines proper behaviour, not only in the social sense but also in the sense of respect for social order, ritual propriety, self-cultivation and modes of education. Confucius believed that the purpose of ritual was to orient people so that everyday relationships can flourish in harmony. Confucian teaching emphasises that the notion of *Li* together with *Ren* or *Yi*.

Moral understanding (Zhi)

Zhi refers to the ability to judge and differentiate between right and wrong, or good and 'not-good'. This is a crucial part of self-cultivation, where an individual must be able to judge things accurately and make the right decisions based on a wise evaluation of the situations

(Woods & Lamond, 2010). Confucius claimed that when he was 40 years old, he finally acquired the state of *Zhi*.

Trustworthiness (Xin)

The Chinese character of *Xin* refers to trust and honesty. In particular, *Xin* is important when relating to others. One should be trustworthy without lying or cheating if they want to have a meaningful and genuine relationship. In this way, *Xin* can indicate loyalty to moral principles. It also refers to loyalty in hierarchical relationships. However, Confucius emphasised *Xin* as a dependable support between friends. Confucius said, ‘A gentleman treats *Yi* as his guide to be just, uses *Li* to regulate his behaviour, possesses *Xin* to express his sincerity’ (Chan & Young 2012 p16).

In Confucianism, there are also five basic social relationships: Father and Son, Ruler and Ruled, Husband and Wife, Elder brother and Younger brother, and Friend and Friend (Park & Chelsa 2007). Through all social teaching, Confucianism emphasises the importance of filial duty, harmony, loyalty, consensus, reciprocity, sympathy and trust. It urges individuals to avoid conflict within society, restrain self-interest for the benefit of the group and control personal desires and emotion to maintain social harmony (Yan & Sorenson, 2004).

During the Han Dynasty (206 BC- 220 AD), Confucianism was introduced to the Korean peninsula, its first destination outside China, at around the turn of the 2nd century BC (Lahtinen, 2015). Since then it has gradually spread to neighbouring countries including Japan and Vietnam (Huy, 1998; Yum, 1988). According to Yum (1988), the reason that Confucianism has had such profound impact in the East Asian region is because it was adopted as the official philosophy. For example, Korea adopted Confucianism in the Yi dynasty as their official governing system for the next 500 years. Japan imported it during the Tokugawa shogunate and it persisted for 250 years (Yum, 1988). Confucianism has been spreading throughout East Asian for a very long time to this day (Hoobler & Hoobler, 2009; Zhang, Lin, Nonaka, & Beom, 2005). Thus, East Asian populations have shared Confucian teaching in the patterns and structure of their society and it has exerted a profound influence on East Asian government, corporate, institutional and community life as well as on East Asian spiritual life (Neville, 2000; Tu, 1998c; Zhu et al., 2007).

Indeed, numerous studies have found evidence of Confucian Heritage Culture (Lee, 1996; Monkhouse et al., 2013; Pye & Pye, 2009), in China, Japan, Korea, Singapore and Vietnam; as distinct from non-Confucian Asian countries such as Indian and Indonesia. As such,

recently, a new term, ‘Confucian Orbit’ (Baumann, Hamin, Tung, et al., 2016), has been introduced for nations which have a strong attachment to Confucian values. Moreover, with East Asians migration to other parts of the world, Confucianism has also influenced cultures in Western countries (i.e. Australia, Canada, and the USA) which have large Asian communities including those of Chinese, Korean and Vietnamese descent (Baumann & Winzar, 2017).

Confucianism has a long history and has also changed over time. For instance, due to political and economic separation, mainland China, Hong Kong and Taiwan vary in their adherence to Confucian values, despite it being the main cultural influence of Chinese history over thousands of years (Lahtinen, 2015). Confucianism has also evolved in other parts of East Asia. Rowley (2012) noted that there are limits on a crudely perceived ‘common’ culture across East Asia. There are varying ethical codes and management styles in the region (Warner, 2014). Moreover, traditional values and practices have changed over time due to industrialisation in the 1960s in East Asia as well as globalisation. For example, as Western individualistic ideas have been imported from America and Europe, Japan has been influenced by Western values in its business and management styles (Benson & Debroux, 2003). Thus, cultural values vary from one country to another, and in many ways, also between ethnicities within a country, and that in turn develops specific competencies to nations or cultures (Tsang, 2011). This is captured in Cultural Difference Theory (Banks, 1993; Cole & Bruner, 1971) that argues that all cultures differ from one another and have varying assets, or ‘cultural capital’ (Bourdieu & Wacquant, 1992).

Confucianism has been an interesting research topic for countless scholars. It has been widely applied to social and anthropological research in Business and Economics. During the 1980s, ‘Confucian dynamism’ was a new concept proposed by Hofstede and Bond (Hofstede & Bond, 1988), to investigate successful Asian economic development (Lin & Ho, 2009). Although a number of researchers have criticised ‘Confucian dynamism’ (Fang, 2003), it has provided greater understanding of values that are rooted in East Asian society (Monkhouse et al., 2013).

The remarkable economic growth in East Asia has been linked with many countries’ approach to education, which springs from Confucianism (Tilak, 2001). Yale President Richard Levin spoke at the Royal Society in London on higher education in the Asia–Pacific on February 1,

2010. He is quoted as saying, ‘The rising nations of the East all recognise the importance of an educated workforce as a means to economic growth, and they understand the impact of research in driving innovation and competitiveness’ (Marginson, 2011, p. 588). In general, the respectful attitude which students show towards teachers and their willingness to be guided by rules allows them to achieve higher academic performance (Yuhan & Chen, 2013). However, only recently, Confucianism has come to the forefront as a driver of East Asia’s competitiveness and also the success of East Asian migrants in the West.

More recent studies by Baumann and his colleagues (Baumann, Hamin, Tung, et al., 2016; Baumann, Hamin, & Yang, 2016; Baumann & Winzar, 2014), have demonstrated that Confucianism appears to strongly affect the way education ‘works’ in East Asia. Given the region’s pedagogical approach, students’ behaviours and attitudes and their subsequent work ethic has been established during schooling. Evidently this helps establish these students as a highly competitive workforce of the future. It is also likely that pedagogical approaches based on Confucianism, may directly impacts individuals’ work ethic and lead them to outperform others. Indeed, according to the Program for International Student Assessment (PISA), East Asian students (i.e. Chinese, Japanese, Korean and Taiwanese) have outperformed students from Western countries for the last decade (Baumann, Hamin, & Yang, 2016). Thus, this study informs this paper and the view that Confucianism may directly (and indirectly) impact on a Confucian work ethic.

2.2.2 Confucian cultural value measurement

In spite of the recognition that Confucian culture plays a formative role in shaping individuals’ behaviours and attitudes, only few studies have investigated its influence at a micro level. For instance, Tsang (2011) examined whether Confucian elements such as respect can play an important role in the service context. Tsang refined dimensions of *Chinese Cultural Values* (Hofstede & Bond, 1988) to understand frontline employees’ behaviours and attitudes that reflect a Confucian work ethic. A more recent study by Monkhouse, Barnes and Pham (2013) developed a scale to measure and capture certain Confucian values, which influence East Asian individuals. These include; face saving, humility, a sense of group orientation, respect for social hierarchy and reciprocity in exchange. An overview of five Confucian values are provided below:

Face saving

'Face' is an importance concept among people in Confucian cultures (Yau, 1986) and it refers to the evaluation of individual based on self as well as external social judgement (Earley & Randel, 1997). As such, people from Confucian cultures try to maintain their public reputation and dignity and to avoid threats to public image because it of the closely linked interpersonal relationships in the society (Lim, 2003). Face is lost when some essential requirements corresponding to one's social position are not satisfactorily met or when conduct falls below the minimum level considered acceptable (Ho, 1976). Generally, individuals have expectations around how they should act and how others members should treat them in their group. Thus, an individual's reputation and dignity are determined by one's interpersonal behaviour and its effect on others in Confucian culture. People from Confucian cultures are always concerned about social expectations and are under strong constraints to maintain face (Chung & Thorndike Pysarchik, 2000).

Humility

Humility is a fundamental virtue and one of the philosophical traditions from Confucianism (Parkes, 2012) . Confucian cultures tend to emphasise the importance of humility in particular when displaying their own knowledge or wealth. This too is related to a collectivistic society which emphasises emotional control for the benefit of the group and to maintain harmonious relationships (Kirkbride, Tang, & Westwood, 1991). Even when one person achieves more than others, one normally tends to keep a low profile to maintain harmony within the group (Monkhouse et al., 2013). The realistic humility from Confucian teaching is a moral strength because it empowers individuals to discern more judiciously how she or he can best contribute (Rushing, 2013).

Group orientation

Confucian cultures are highly collectivistic as opposed to Western individualistic culture (Hofstede et al., 1991). The value of group orientation in East Asia reflects Confucian teaching which emphasises the importance of family and harmonious interpersonal relationships (Yan & Sorenson, 2004). In Confucian teaching, individuals are part of the group and they exist for the benefit of the group. This benefit can be achieved through an individual's displaying appropriate behaviour and attitudes within the group. For example, the Confucian virtue, *benevolence (Ren)*, is part of this strong collective orientation. Individuals do not exist alone; they are part of an encompassing social relationship and are considered to

be insignificant without their community (Wang et al., 2005).

Hierarchy

Respect for hierarchy can be inferred from the importance of human relationships and social order in Confucian teaching. Individuals are connected to one another through relationship and they are taught to respect each individuals' role in those relationships (Heine, 2001). According to Yan and Sorenson (2004), age is a primary factor in setting up the social hierarchy and organising human relationships. In this hierarchical society, younger people are expected to respect older people under all circumstances, and give precedence to elderly when conflicts of interest arise. However, older people are also expected to treat younger people with kindness and care. Confucius said that everyone has a position and individuals should behave according their rank in the society (Lin, 2008). In other words, individuals have a clear set of obligations and duties towards others in the group and these various relationships constitute a coherent hierarchy.

Reciprocity

Confucianism regards relationships as complementary and reciprocally obligatory. In a sense, individuals in Confucian culture are forever indebted to others and they do not calculate what they give and receive (Yum, 1988). As such, return favours cannot be forced, they are expected to come from one's own feeling of obligation. Confucian philosophy strongly support treating others as one would like to be treated (Monkhouse et al., 2013). Thus, reciprocity can be seen as an expectation of social responsibility among people. Confucian teachings address the performance of duties. Duties for others are the fundamental duties and individuals should be aware that this performance as a necessary means of self-development. Although reciprocity generally refers to the process of give and take for social relationship (Chen & Chung 1994), it also refers to the concept of filial piety (Schwarz, Trommsdorff, Zheng, & Shi, 2010).

2.2.3 Mediating effects on work ethic

It is generally accepted that respect and discipline in Confucianism is related to a strong work ethic, such that higher levels of respect and discipline are associated with a higher level of work ethic. In this section, respect and discipline are viewed as mediating factors in the pedagogical approach of individuals' work ethic as derived from Confucianism.

In the following sections, this study discusses how values associated with first principles,

labelled hereafter as respect, are expected to relate to Confucianism, and how the values associated with the second principle, labelled as discipline, can relate to different dimensions of the work ethic.

Respect

Respect is the centre of Confucianism. Children learn to respect their elders, including their parents and teachers. Mature persons have contributed to their families and society throughout their lifetime (Sung, 2001) and are considered to have more experience than subordinates. They can pass wisdom and advice to the next generation, and demand respect (Baumann, Hamin, & Yang, 2016). Although cultural change has had a significant effect on elder respect (Palmore & Maeda, 1985), in East Asia, the notable tradition of elder respect persists. For example, the Chinese, including Hong Kong, Singapore and Taiwan, Japanese and the Koreans have shared this tradition for many generations (Sung, 2001). The concept of respect for elders and for authority has been seen in various shapes and forms in East Asia (Sung, 2004). Confucius strongly emphasised the harmony of social relationship and he believed that it could work when everyone respected and understood the ranking or order of their specific role in society (Lin 2008).

The traditional basis of respect for elderly is from Confucian teachings of filial piety. Family is the foundation of human relationships, and respect for parents and elders is the most highlighted point in this teaching (Sung, 2001). Filial piety defines duties and obligations between parents and children to maintain fundamental order and harmony in families (Ho, Rasheed & Rasheed 2003). Traditionally, filial piety entails respecting, honouring, obeying, pleasing, offering material and non-material support to parents and promoting the public prestige of the parent and the ancestors (Cheng & Chan 2006; Ng & Nelson 2002). Above all, non-material support such as respect and affection is the most important behavioural practice (Ikels, 2004).

A child in a Chinese family is taught to be respectful and obedient, not only toward parents but also to all other senior family members. Among siblings, younger children are expected to be respectful to older brothers and sisters and older children are also expected to be kind and respectful to their siblings. The relationship of mutual respect is expected within the family (Yan & Sorenson, 2004). In line with these teachings on respect, Asian parents educate their children to avoid conflict and keep harmony within group (collectivism), whereas Western society is less structured and emphasis is placed on individualism (Rudowicz & Ng, 2003). Kelly (2012) noted that emphasis on collectivism and Confucianism principles are very much

apparent in Chinese society although there have been changes in applications in China today.

Previous studies have introduced various behavioural expressions for respecting elderly in East Asia. Palmore and Maeda's (1985) research showed the high status of the elderly in Japanese society and introduced descriptive expressions of the ways in which the Japanese respect their elderly. Ingersoll- Dayton and Saengtienchai (1999) conducted research to discover the diverse expressions of elderly respect in Taiwan, Singapore, Thailand, and the Philippines. However, there is only a small body of cross-cultural research (i.e. East vs. West), which has addressed the concept of respect for the elderly. Silverman and Maxwell (1978) examined respect for the aged within thirty-four societies which contributed to the literature by identifying different kinds of respect. However, they did not examine whether respect evolved over time in these societies.

Perhaps there is a fundamental difference in the norm for filial duty between East and West. In the Western society, filial responsibility is often meant to be solely the practice of caring for aging parents. In the East Asian culture, however, filial piety is a way of life in which the family comes before the self and it is not just about supporting and caring for parents. It extends to the respect of authority, power, the transmission of values and the continuation of the family history and lineage (Chow, 2009). Given such a subtle difference in the meaning of filial duty and respect for elderly, more research is needed to fully understand this interesting cross-cultural phenomenon (Cheng & Chan, 2006).

Respecting teachers

Confucian cultural tradition teaches children to respect the elderly and authority, both at home and school, resulting in a higher level of respect for teachers (Chan 1999). As such, problems of discipline are less likely to occur in the classrooms of traditional Confucian-influenced nations (Lewis, Romi, Qui, & Katz, 2005).

This respect is demonstrated in China for example, where teachers are addressed as *Master*, in Japan as *Sensei* and in Korea as *Seonsangnim*, which is one of the highest forms of respect given. In Taiwan, Confucius' birthday is a national holiday and is recognised as Teacher's Day (Haynes & Chalker, 1997). South Korea also celebrates Teacher's Day where students express their love and respect for their teacher. Parents, students and teachers all assume that their role is to pass on valuable knowledge and truth. In addition, people from Confucian cultural backgrounds believe that the transmission of values comes from the teacher's and parent's heart and passion (Low, 2011). Thus, it is not common for students to question a

teacher's authority or challenge his/her judgment (Sorensen, 1994). Within the collectivist context of East Asian societies neither a teacher nor a student should ever be made to lose face (Yook & Albert, 1998). Therefore, teachers normally initiate communication with students and students only speak up when called upon by the teacher. This preserves harmony in the classroom (Hofstede, 1986). Alternative research has criticised this as limiting the creativity of students (Torrance & Sato, 1979).

In East Asia, the relationship between teachers and students is viewed as an extension of the mother-child relationship (Kim, 2005). Confucianism states that teachers must love their students. Teachers need to understand and know their students to produce favourable results (Chou, Tu, & Huang, 2013). Confucianism also supports the importance of teachers finding joy in their teaching and in their students' learning processes. Loving students is seen as the equivalent of being committed to their students' development (Low, 2010). In other words, when teachers love their students, teachers are also more caring and patient towards the student. In turn, the student would likely find joy and embrace their learning.

In South Korea, there is a proverb, 'The king, teacher and father are the same rank.' Korean parents highly respect and trust the teachers' role to provide moral education and counselling for students' academic instruction, as well model behavioural practices that students should be well acquainted with both inside and outside the classroom (Yao & Kierstead 1984). In contrast, Kim (2005) notes that teachers from Western society (i.e. America) are confronted with a different set of rules with various degrees of cooperation among the students. In an individualistic society both a student's privacy and parental rights take priority over teacher's mentoring. Furthermore, due to role definition, social expectations, under-appreciation and low pay, teachers may be less inclined to delve into a student's life outside of school. In East Asia, there are more significant financial benefits for teachers such as better pay and incentives than are received by their American counterparts (Haynes & Chalker, 1997). As a consequence, teaching is seen as a respectable occupation and teaching positions are competed-for in East Asia (Kim 2005).

Discipline

Moral education is especially important in education for Eastern societies influenced by Confucian teaching. In the Confucian orbit societies, education is not just about transmitting skills and knowledge. It is seen as an essential process of socialisation for young people who are future workforce in their society. Thus, discipline is viewed as a fundamental part of moral education as it elicits compliance to social relationships and collective norms. Although

there is a criticism about teacher-driven discipline that might have an adverse effect on child development (Greenfield & Cocking, 2014), it is not mere training to make children obey, as it is often misunderstood by observers from the West. Discipline is also not just a pragmatic means to keep classroom order, as is the case elsewhere (Cheng & Wong, 1996). It is much more.

School discipline research has been conducted in many fields, such as child development and behaviour (Jong, 1993; Walker et al., 2007), adolescent behaviour (Gottfredson, Gottfredson, & Hybl, 1993; Ramser, 1993), punishment and physical discipline (Tang, 2006; Whipple & Richey, 1997). More recent research looks at how discipline in the classroom is perceived by students, parents and teachers and how it is used to manage the classroom (Dreikurs, Grunwald, & Pepper, 2013; Edwards & Watts, 2010). School discipline can be defined as ‘all activities that are implemented to control learner behaviour, to enforce compliance and maintain order’ (Bechuke & Debeila, 2012, p. 242). In addition, discipline aims to positively manage students’ misbehaviour (Hue, 2007).

Kyriacou (1997) defines student misbehaviour as ‘any behaviour that undermines the teacher’s ability to establish and maintain effective learning experience in the classroom’ (p121). In general, students’ classroom misbehaviour is seen as disruptive behaviour in the classroom as activity which (a) distresses, upsets or annoys teachers (b) causes trouble and disruption of good order in the classroom, or (c) leads teachers to comment continually (Ding, Li, Li, & Kulm, 2008). However, Leung and Ho (2001) noted that problematic behaviour can be different depending on the cultural context.

Generally, East Asian nations share a Confucian teaching philosophy of ‘strict discipline’ (Zakaria & Yew, 1994) thus, ‘strict discipline’ is common in the classroom of East Asian schools where teachers emphasise ethical behavioural rules (e.g. ‘no talking behind teacher’), to their students. However, teachers also educate the guidance of ethical behaviour outside of classroom, given students are also members of society. In a review of major studies of Chinese values, Bond (1996) noted that ‘At the cultural level, Chinese societies may be characterised as high in hierarchy and very high in discipline; at the individual level, Chinese may be characterised as placing a high value on identification with their various in-groups’ (p 225). In this sense, East Asian educational philosophy strongly disciplines students to respect cultural norms and values for a harmonious society.

The literature on pedagogic policy issues has established an association between Confucian strict discipline and economic development (Olssen & Peters, 2005). For example, Hue

(2007) and Kwon (2004) explain that the principal ‘discipline’ of the school system with a strong emphasis on academic performance, one of the great driving forces of economic development in East Asia such as China, South Korea and Singapore. In East Asian education, teachers closely monitor students’ academic performance, including whether students have completed their homework, monitoring punctuality for class and compliance with dress codes. This authoritarian/authoritative education approach has resulted in higher academic performance compared to Western counterparts (Otsuka, 1996). East Asian countries hold the top five rankings according to PISA 2015, the largest global school ranking, which will be published in late 2016 by OECD (Chang, 2015). Singapore was first, followed by Hong Kong, South Korea, Japan and Taiwan.

In line with strict discipline, teachers create an environment of high expectations to encourage students to work hard (Sorensen, 1994). East Asian teachers strongly believe that good grades come from hard work, diligence, effort and endurance (Haynes & Chalker, 1997). In addition, it is believed that this hard work will also influence the greater social system. However, it has to be pointed out that expectations extend beyond learning and academic performance. The general objective of discipline for students is to be strong at three areas; conduct, learning and physical fitness, in that order. For example, Chinese students are required to pass a physical subject before they transit to a higher grade. Note that the good conduct of students is given more importance than academic performance. For instance, a student with good conduct but poor academic performance is unfortunate while a student with high academic performance but poor conduct is regarded as unacceptable (Cheng & Wong 1996). As such students from East Asia appear to display greater levels of self-control, and a majority of Chinese teachers do not have problems with class management. This allows them to have larger class sizes (Ding et al., 2008).

In contrast, educational institutions in the West such as the United States have a very careful approach toward discipline as there is possibility that students who have been disciplined may raise legal issues against teachers (Blois, 2005). In the United Kingdom, discipline is the responsibility of the teacher and school, but not of the students to comply with policy (Perryman, 2006). In general, the Western discipline style is less authoritarian, resulting in ‘teachers losing about one half of their teaching time because of students’ problematic behaviour’ (Baumann, Tung, & Hamin, 2012, p. 5). In other words, teachers deal with students who misbehave in class due to the lack of a disciplined school environment and this affects other students’ actual learning. Thus, educators from Western contexts are concerned and acknowledge issues with students’ discipline along with their literacy.

In modern society, educational institutions are highly developed and operate under societal norms and values which allow the institution to directly impact the success of a nation (Meyer, 1977). Educational institutions, where nurturing a future workforce plays a crucial role, this study argues, create a pedagogical approach, which passes on cultural values and ultimately the work ethic of that culture.

2.2.4 Linking Respect and Discipline to the Confucian Work Ethic

The basic hypothesis of this study is that Confucianism may have specific roles in forming the work ethic of individuals. This study has explored how Confucian values are associated with respect and discipline. Indeed, it seems that Confucianism may play a positive role in the formations of a strong work ethic, in particular, in the educational context.

Traditionally, ‘work ethic’ has been defined as the ‘principle that hard work is intrinsically virtuous or worthy of reward’(Kohn, 1999). In practice, a strong work ethic may be characterised by a high level of self-motivation, by work being completed on time and by the worker taking initiative (Frey & Jegen, 2001) but taken together, a strong work ethic is one’s positive attitude toward work (Yousef, 2000). This study will focus specifically on the latter understanding.

The social and behavioural science literature has defined and measured ‘work ethic’ as an outcome related to work commitment (Blau & Ryan, 1997). The concept of the work ethic evolved from the studies of the early 20th century scholar, Max Weber (1864-1920), who argued that Protestantism created Protestant work ethic (PWE). He argued that the Protestant work ethic contributed to the development of capitalism in the Western society. Weber (2002) raised questions as to why some people appear more conscientious in their work than others. For many years, this remained one of the most dominant topics in the psychological investigation of occupational behaviour. Most recently, there are many members of the business community who have raised concerns about a waning work ethic in Western countries.

Some believe that the work ethic is weakening in industrialised countries over time (Ali & Azim, 1995). Concern has been expressed that the decline in the old work ethic results in poor job performance, higher levels of turnover and absenteeism and increases counterproductive worker behaviour (Miller, Woehr, & Hudspeth, 2002). On the other hand, others have insisted that the work ethic is not declining, rather that the younger generation, labelled ‘Generation X’, have different interpretations of the work ethic than previous generations (Cannon, 1994;

Kupperschmidt, 1998). Although there are different views on whether the work ethic is declining in the West, there is no doubt that the work ethic is a crucial factor to workforces and national productivity. According to Flynn (1994), about 60% of American managers consider a good work ethic as the most important factor when they hire administrative employees. More than 50% of hiring managers claimed that they were more concerned about an applicant's attitude than aptitude. Additionally, the work ethic has been seen as a more important factor than educational background or other characteristics such as enthusiasm and intelligence in employees (Miller et al., 2002).

Although there is a growing concern about the waning work ethic and subsequently the value of work among practitioners, only limited psychological literature has provided clarity on this issue (Hirschfeld & Feild, 2000; Miller et al., 2002). Perhaps researchers have been discouraged from continuing studies in this area because of the high frequency of ambiguous results from the past research. The enigmatic data may also be due an attempt to study work ethic theoretically without considering each of its individual dimensions (Miller et al., 2002).

Research on work ethic is often based on Weber's proposition of a Protestant Work Ethic (PWE)(Furnham, 1984). Morrow (1983) led research into work ethic by measuring five distinguishable work commitments: Value of work, Career, Job, Organization and Union. Following Furnham's view of the 1980s' work ethic, Blau & Ryan (1997) established four dimensions, providing a more secular work ethic construct: Belief in hard work, Asceticism, Independence and Non-leisure. However, hard work was established as a core value in itself and key to success in the life (Rarick, 2007). In early 2000, Miller and his colleagues (Miller et al., 2002) suggested a multidimensional work ethic measurement that departed from the idea of a Protestant work ethic. They proposed seven dimensions of work ethic as; Self-reliance, Morality/Ethics, Leisure, Hard work, Centrality of work, Wasted time, and Delay of gratification. All of which are arguably more consistent, and may be considered as Confucian work ethic (CWE) (Baumann & Winzar, 2017).

More recent studies, Pogson, Cober, Doverspike, & Rogers (2003) refined the work of Miller et al. (2002) and developed three career stages; Trial stage, Stabilisation stage, and Maintenance stage. Pogson and his colleagues explained that employees who are at the trial stage focus on hard work, but the ones who are at the maintenance stage emphasize leisure dimensions.

The philosophical foundations of Confucianism have created a certain work ethic in Confucian orbit countries and the CWE has played a similar role to Weber's PWE in the West

(Chan, 1996). The Confucian work ethic consists of a belief in the value of hard work, diligence, perseverance, a love of education and social harmony (Hofstede & Bond, 1988). Coates (1987) and Kim and Park (2003) have proposed that hard work, diligence and perseverance from CWE have delivered economic success in Japan and South Korea. Hue (2007) and Kwon (2004) also believe that values of hard work and education positively impact economic development as well as the remarkable academic performance of East Asian countries such as South Korea, Singapore and Taiwan. Many studies have shown that East Asian students outperform American students, especially in mathematics and science (Leung, 2002; Sun, 1998). East Asian parents emphasise the importance of hard work as a path to academic success. Similarly, the Japanese believe that the best predictor of later success is 'receptive diligence,' which is closely related to CWE. Stevenson and Stigler (1994) also noted that hard work is not an abstract credo but a practical guide in East Asians' everyday lives.

The value of social harmony through CWE also has positive aspects for societal development. Confucius emphasised interpersonal obligations and relationships. This emphasis aims to build and maintain social harmony through its value system. One is expected to sacrifice personal interests in order to achieve a national and societal level of harmonious relationships (Rarick, 2007). The values of interpersonal harmony begin in the family as the social group. In order to achieve compromises within the group, one avoids conflict and confrontation with others (Kirkbride et al., 1991). Wah (2001) noted that the emphasis on harmony may lead to friendly and congenial relationship among fellow employees in organisations. As such, due to the importance of interpersonal relationships, Chinese managers tend to place more emphasis on relationships than performance (Lockett, 1988). Moreover, a vast majority of companies pursue 'harmony' and 'cooperation' as company mottos or slogans in South Korea. They believe that harmony promotes good teamwork and can act as a reminder of the mutuality of the company's and employees' interests. They also use the term 'family' as a metaphor for the company (Kim & Park 2003).

In both PWE and CWE approaches there are similarities but there are also some differences. They both promote values such as hard work and thrift, but differences arise in the focus on individual or group achievement. While CWE emphasises values of group achievement and social harmony, PWE places value the individuals (Rarick, 2007).

PWE and CWE also differ in their view with regard to wealth. In particular, people who believe in PWE are likely to take wealth as the 'crowning sign of God's favour' whereas

poverty is perceived as the ‘universal sign of sin’(Oates, 1971). In other words, Protestantism encouraged individuals to pursue materialistic gain through hard work, and achievement was regarded as part of God’s plan for human beings. On the other hand, wealth accumulation was not particularly supported by traditional Confucian values. Confucianism is more focused on the welfare of the group than generating economic gain (Weber, 2002). Moreover, scholarly achievements and possession of knowledge has greater emphasis in Confucian ideology (Lim 2003)

According to Bourdieu (2011), the work ethic is passed on in education. It contributes to ‘cultural capital’ through distinct behaviour related to ‘achievement orientation’ in the workforce. A recent study showed that culture may be an important driver of how people educate their children and that it eventually in turn drives their work ethic (Baumann, Hamin, & Yang, 2016). This study measured work ethic across ten different countries (East Asian vs. Western countries) and the results show that 10-37% of work ethic is influenced by different pedagogical approaches. In East Asia, strict discipline and focus on academic achievement are a prominent pedagogical approach and focus, but not in Western countries. It shows that there is evidence to suggest that the pedagogical approach as influenced by Confucian values may link with higher levels of work ethic for the next generation.

2.3 HYPOTHESES

The literature review identified some gaps in the current knowledge, which this study seeks to fill. A conceptual model was developed (Figure 1) to address the hypotheses listed below, which have been organised into three sections.

H_{M1}: Face saving has a significant impact on work ethic mediated by respect.

H_{M2}: Face Saving has a significant impact on work ethic mediated by discipline.

H_{M3}: Reciprocity has a significant impact on work ethic mediated by respect.

H_{M4}: Reciprocity has a significant impact on work ethic mediated by discipline.

H_{P1}: Face Saving has a significant impact on respect.

H_{P2}: Face Saving has a significant impact discipline.

H_{P3}: Reciprocity has a significant impact respect.

H_{P4}: Reciprocity has a significant impact on discipline.

H_{P5}: Respect has a significant impact on work ethic.

H_{P6}: Discipline has a significant impact on work ethic

H_{D1}: Face Saving has a significant impact on work ethic.

H_{D2}: Reciprocity has a significant impact on work ethic.

CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

As outlined in Chapter 1, the aims of this study are to investigate how the influences of Confucianism may have specific roles in forming individuals' work attitudes and work ethic. Specifically, the study considers workers' level of respect and discipline, and the pedagogical approach of the culture as mediating factors. To this end, a quantitative research methodology will be utilised. This study uses a two-step approach to achieve its research objectives. First, it develops a conceptual model in order to explain work ethic. Second, based on this model, it tests the hypothesised associations between the Caucasian and Confucian orbit group under investigation. This chapter outlines the research process, including the study's sampling procedure, data collection and method of data analysis.

3.2 JUSTIFICATION FOR THE METHODOLOGY

Quantitative methods of research explain phenomena by collecting numerical data that are analysed using mathematically-based methods (Aliaga & Gunderson, 2002). Creswell (2013) also describes quantitative research as an approach for testing objective theories by examining the relationship among variables. In other words, quantitative research is good at providing information in breadth and suitable for the testing of theories and hypotheses. Moreover, the quantitative method can explore causes and effects (Muijs, 2010). Thus, a quantitative method was selected to collect and analyse the data used to validate this study's conceptual model and test its hypotheses.

3.2.1 Pen-and-Paper Survey Methodology

Data was collected via a pen-and-paper questionnaire designed to ascertain university students' perceptions of Confucian values – level of respect, discipline and work ethic. The rationale behind a pen-and-paper survey methodology for this study was to get higher and more accurate response rates. According to Forza (2002), there are several other advantages of pen-and-paper surveys such as the opportunity to administer complex questionnaires, details and explanations and improved ability to contact to hard-to-reach populations. It also allows the researcher to collect an adequate number of valid samples within a short period (Muhib et al., 2001).

3.2.2 Factor Analysis

One of the key objectives of this study was to develop and test a Confucianism instrument that conceptually measured individuals' underlying attitude and ultimately, their work ethic. This involved the adaption of newly developed Confucian value dimensions by Monkhouse et al (2013). Thus, five new dimensions were used from their findings, Face saving, Humility, Group orientation, Hierarchy and Reciprocity. Thus, this study needs to validate the scale and refine the factorial structure through a factor analysis before proceeding to further analysis. Factor analysis consists of a number of statistical techniques, the aim of which is to simplify complex sets of data and to reach a more parsimonious understanding of measured variables (Hayton, Allen, & Scarpello, 2004; P. Kline, 2014).

3.2.3 Structure Equation Modelling

Structural equation modelling (SEM) is a tool for analysing multivariate data, widely used in the social and behavioural sciences (Hox & Bechger, 1998). In particular, SEM tests a theory by specifying a model that represents latent variables, or factors¹. The SEM implies a structure for the covariance between the pertinent observed variables (Kline 2015). SEM can be seen as a combination of factor analysis and regression or path analysis. However, it is superior to ordinary regression models in its ability to incorporate multiple independent and dependent variables (Hayton et al., 2004). Most importantly, the basic tests of mediation and moderation in SEM are handled in a way that provides strong empirical evidence for or against a mediation or moderation hypothesis (Cheung & Lau, 2007). Thus, the use of SEM for this study is appropriate, as this study considers levels of respect and discipline as mediating factors to investigate individuals' work ethic. The benefit of using the proposed model is that multiple variables can be tested simultaneously and statistically to determine their influence on the outcome. The model should be adequate by determining 'goodness-of-fit'. If the relationship amongst variables is plausible then the model will have a good fit, if not then the relationship of variables and subsequently the model will be rejected (Byrne, 2013).

3.3 ETHICAL CONSIDERATIONS

Social science investigates complex issues involving cultural, economic, legal and political phenomena (Freed-Taylor, 1994). Thus, it is compulsory for social research, which involves

¹ In the behavioural science, researchers are often interested in studying theoretical constructs that cannot be observed directly. These abstract phenomena are termed *latent variables*, or *factors*.

human participants to comply with stringent ethical standards. In Australia, the implementation of ethical standards is based on the 2007 *National Statement on Ethical Conduct in Human Research* (Mollet, 2011). The present study has been approved by the Macquarie University Human Research Ethics Committee prior to conducting the research. As the principle of voluntary participation requires that people not be coerced into participating in research, all participants were briefed and given the opportunity to discontinue their participation at any time without consequence through a supplied *Information and Consent Form* (See Appendix A). It emphasises protection of the privacy and confidentiality of research participants. The *Information and Consent Form* also gives information on the purpose of study, its scope and appropriate contact details if participants wish to discuss issues regarding the research. It also stated that a summary of research's results could be provided if participants requested it.

3.4 INSTRUMENT DEVELOPMENT

This section focuses on the development of the questionnaire. In particular, a discussion on the variables measured, the measurement scale, and pre-testing are included. The final questionnaire is presented in Appendix B.

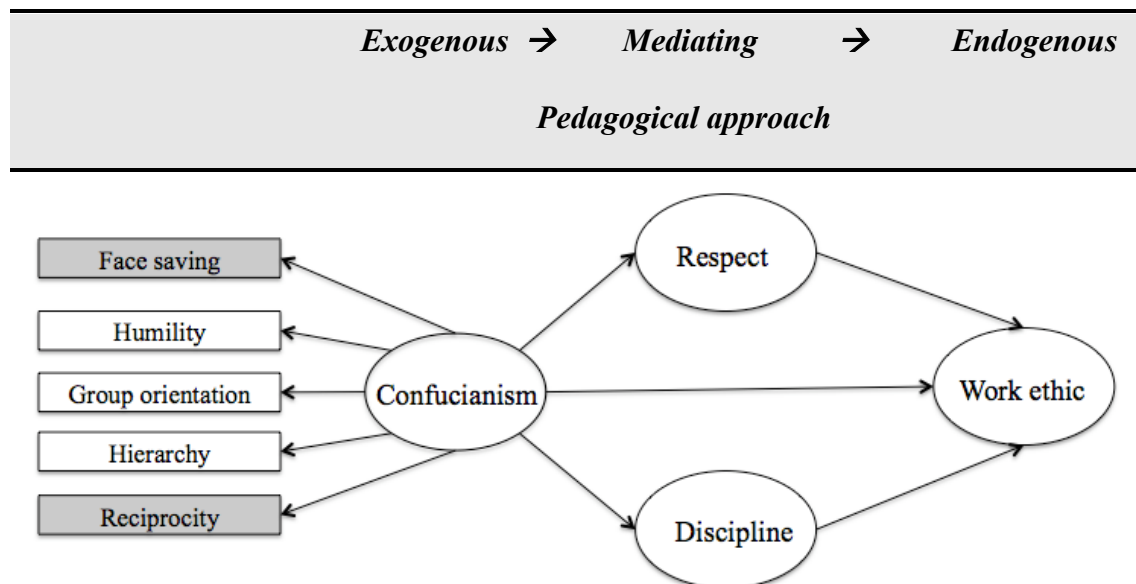


Figure 2: Exogenous, Mediating and Endogenous Variables

* Note: Initially, 5 dimensions were used for Confucian value scale, however, only Face saving and Reciprocity were used for SEM after EFA and CFA process.

3.4.1 Operationalisation of Variables

The questionnaire was used to determine the level of work ethic and to investigate the

influences of level of Confucianism and two mediating factors, respect and discipline. The design of the questionnaire was based on multiple item measurement scales. The items used to operationalise the constructs came from a number of established and validated sources. The primary objective of this study was to determine the factors that drive a strong work ethic (as the dependent variable); therefore, the focus was not on the measurement of work ethic itself, but rather on the four independent variables listed above. See Table 1 for summary of the questions related to each variable.

Exogenous variables: Confucian value

Monkhouse, Barnes and Pham's (2013) scale of Confucian values was adopted because it was a reliable tool to capture that ideology (Yao, Baumann and Tan, 2015). The values are measured along five dimensions: face saving, humility, group orientation, hierarchy, group and reciprocity. These five multi-dimensional scales consisted of 24 items. It is appropriate to measure perceptions of Confucian cultural values as it reflects the key tenets of Confucian teachings. As the Chinese Value Survey (CVS) has long been used for social and cross-cultural studies, it was also considered as a tool to measure the Confucian values for this study. The CVS was developed by Bond and his colleagues (Michael H Bond, 1988) and has been used to evaluate cultural values within the setting of a Chinese social value system derived from the Confucianism. However, this instrument has been criticised by many researchers due to Western perceptions of their lack of importance in Chinese culture (Matthews, 2000). Therefore, Monkhouse, Barnes and Pham's (2013) Confucian values scale was regarded as the most recent, appropriate and comprehensive inventory, which was moreover developed in an East Asian context.

Mediating variables: respect vis-à-vis discipline

The level of respect was measured through a total of six variables. Three items have been adopted from Hyun (2001) and three from Littlewood (2000). The purpose of this construct was to capture the respondent's perception of respectful attitude towards their elders, in particular their teacher. As Confucian teaching emphasises respect for the hierarchical order and loyalty to elders, teachers and superiors including parents, respect is expected from the subordinate. Liu (1998) notes that China has a culture with a long tradition of unconditional obedience to authority. Thus, a teacher is seen not as a facilitator but as a font of knowledge to be delivered to students.

Following the suggestion of Lewise, Romi, Qui & Katz (2008), the level of classroom

discipline was measured through the six variables. These six include aggression, punishing, negotiation, discussion, rewarding and involvement in decision making. This instrument has been used in a recent study to assess students' reactions to their teachers' classroom disciplinary practices (Lewis, 2006).

Endogenous variable: work ethic

Work ethic was measured through the generic eight-item instrument (Pogson et al., 2003). These eight are based on the subscale of the 'Work Ethic Profile' of Miller, Woehr & Hudspeth (2002) and includes; leisure, the centrality of work, wasted time, hard work, self-reliance, delay of gratification and morality/ethics.

Previously, work ethic has often been measured as a unidimensional construct (Furnham, 1990; McHoskey, 1994). More recently, McHoskey (1994) factor analysed Mirels and Garrett's Protestant Ethic Scale (1971), one of the most widely used instruments to measure work ethics, and found a four-factor solution. McHoskey labelled these factors; anti-leisure, hard work, asceticism and success, and that study explored differences in the relations between these factors. Following this, Miller et al. (2002) developed a comprehensive, multidimensional measure of work ethic that is more powerfully explanatory. Thus, a multidimensional measure of work ethic has been selected for this study.

Demographic variable

Ethnicity was measured by asking participants to identify their ethnic background regardless of their citizenship. Respondents could indicate that they were Caucasian, East Asian (Chinese, Japanese and Korean) or belonged to another ethnicity/race, for example European (See appendix B).

This study heeds the call to consider 'intra-national diversity' (Tung, 2008) by comparing the level of Confucianism and the value of work ethic among a sample of Caucasians and East Asian respondents in Australia. Tung (2008) argued that intra-national differences could vary as much as differences between countries. Thus, researchers need to consider this diversity in cross-cultural studies.

In Australia, according to the Australian Bureau of Statistics 2013-2014, 28 % of its population or 6.6 million people were born overseas. Between the 2013-2014 financial years, the populations of Australians who were born in Japan and Taiwan each grew by more than 18 per cent. That is more than those born in China, one of Australia's largest populations.

Since 2004, the number of Australian residents who were born in China has more than doubled, to a total of 447,400 in 2014. Many of the overseas-born immigrants, particularly those from Asian countries, have retained their cultural values and traditions in their adoptive countries (Thomas, 2015). In light of the growing ‘intra-national diversity’ in Australia, it is increasingly important to consider how the mix of ethnicity and religious affiliation across nations and within a given nation can affect people’s attitudes toward work ethic (Tung, Baumann, & Hamin, 2013)

Table 1: Summary of Variable Constructs and Sources for Development

Latent	Questions	References
Confucianism	<p><i>*Face saving</i></p> <ol style="list-style-type: none"> 1. I am concerned with not bringing shame to myself 2. I am concerned with not bringing shame to others. 3. I pay a lot of attention to how others see me. 4. I am concerned with protecting the pride of my family. 5. I feel ashamed if I lose my face. <p><i>Humility</i></p> <ol style="list-style-type: none"> 1. I avoid singing my own praises. 2. I try not to openly talk about my accomplishments. 3. I like to draw others’ attention to my accomplishments. 4. Being boastful is a sign of weakness and insecurity. 5. I only tell others about my achievements when I am asked to. <p><i>Group Orientation</i></p> <ol style="list-style-type: none"> 1. I recognize and respect social expectations, norms and practice. 2. When I am uncertain how to act in a social situation, I try to do the same as what others do. 3. I usually make decisions without listening to others. 4. When I buy the same things my friends buy, I feel closer to them 5. If there is a conflict between my interest and my family’s interest, I will put priority on mine. <p><i>Hierarchy</i></p> <ol style="list-style-type: none"> 1. I am happy if people look up to me. 2. We have a vertical order in the society that we should respect. 3. A person with high personal achievements is considered to have high social standing. 4. Wealth and power are becoming important determinants of social status. 	Monkhouse, Barnes &Pham (2013)

**Reciprocity*

1. The practice of 'give and take' of favours is an important part of social relationships.
2. I feel a sense of obligation to a person for doing me a favour.
3. It is bad manners not to return favours.
4. When I receive a big favour, I try to go an extra mile to do something nice in return.
5. When I buy a gift to say thank you to someone, I try my best to make sure the person will appreciate it.

**Respect*

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. The student should always respect his or her teacher. 2. People should be polite at all times. 3. People should have respect for anyone older than they are. 4. In the classroom I see the teacher as somebody whose authority should not be questioned. 5. I see knowledge as something that the teacher should pass on to me rather than something that I should discover myself. 6. I expect the teacher (rather than myself) to be responsible for evaluating how much I have learnt. | <p>Hyun (2001)</p>

<p>Littlewood (2000)</p> |
|---|--|

**Discipline*

- | | |
|---|----------------------------|
| <ol style="list-style-type: none"> 1. My teachers recognise appropriate behaviour of individual students or the class (eg, reward individual students who behave properly) 2. My teachers punish students who misbehave, increasing the level of punishment if necessary (eg, increase the level of punishment if a misbehaving student stops when told, but then does it again), 3. My teachers discuss with students the impact of their behaviour on others, and negotiate with students on a one-to-one basis (eg, discusses students' behaviour with them to allow them to figure out a better way to behave in future) 4. My teachers involve students in classroom discipline decision making (eg, organises the class to work out the rules for good behaviour) 5. My teachers hint about students' unacceptable behaviour without making a demand (eg, describe what students are doing wrong, and expect them to stop) 6. My teachers use aggressive techniques (eg, yell angrily at students who misbehave). | <p>Lewise et al (2008)</p> |
|---|----------------------------|

**Work Ethic*

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. I would prefer a job that allowed me to have more leisure time. 2. I experience a sense of fulfilment from working. 3. I schedule my day in advance to avoid wasting time. 4. Working hard is the key to being successful. 5. Having a great deal of independence from others is very important to me. 6. Things that you have to wait for are the most worthwhile 7. One should always do what is right and just. 8. I enjoy working hard. | <p>Pogson et al (2003)</p>

<p>Baumann, Hamin and Yang (2016)</p> |
|---|---|

* Note: Items with an asterisks mark are retained for the SEM analysis

3.4.2 Measurement Scale

Likert-type scales (Likert, 1932) are a popular instrument to measure constructs such as attitudes, emotions, opinions and personalities in the arena of social sciences. Consequently, all observed variables in the study (i.e. Confucianism, respect, discipline, competitiveness, work ethic) were measured using interval scaled questions. While Fink (2002) recommends the 5-7 point Likert scale to capture information on a range of phenomena, Foddy (1994) suggested that a minimum of seven categories is required to ensure scale validity and reliability.

According to Chen, Lee & Stevenson (1995), the Japanese and Chinese were more likely to use the midpoint on the rating scale than their US counterparts. However, Harzing et al (2009) explained that the use of a seven-point scale has advantages of reducing extreme and middle response styles compared with five-point scales. Clark (2004) also argued that significant differences in extreme style response can exist across cultures. Researchers can minimise cross-group differences in extreme style response by selecting the appropriate number of response items. Thus, a seven-point Likert scale was applied to this study and all statements asking respondents to indicate their level of agreement or disagreement; anchored as “1=Strongly Disagree” and “7=Strongly Agree”.

Dawes (2008) noted that the sophistication of analytical methods such as confirmatory factor analysis and SEM are now commonplace in many research areas. These tools are sensitive to the characteristics of the data, such as variance, skewness, and kurtosis (Bentler, 1995). Therefore, researchers are required to acknowledge more about how scale format affects these characteristics.

3.4.3 Questionnaire pre-testing

Dillmann (1978) suggested that pre-testing a questionnaire should be done by submitting the final version of questionnaire to three types of people: target respondents, industry experts and colleagues. As such, the questionnaire was pre-tested on a total of 18 respondents prior to the final distribution of the questionnaire; 10 in the target population, 5 to colleagues and 3 to industry experts.

The first round of pre-testing was carried out on colleagues and industry experts in order to get useful advice on whether the questionnaire accomplishes the study objectives and to prevent any ambiguity of wording or ethical issues in specific areas. The second round of pre-

testing was carried out by respondents who have similar demographics to the target population. On average, respondents took 15 minutes to complete the questionnaire. However, after gathering the feedback from respondents, for example, some respondents were not sure about the meaning of a statement, the questionnaire was revised and modified. Then the questionnaire was distributed to a second group of 10 respondents for further pre-testing to target population. The average time for completion was 12 minutes, and many of the issues that pointed out in the first round of pre-testing were resolved.

3.5 DATA COLLECTION & SURVEY RESPONSE

The data was collected from a sample of 468 college students who are studying at Macquarie University, between 2 June and 10 June 2016. The student survey was approved by the unit convenors and the aims of study were briefly introduced to students before conducting the survey. Moreover, participants were clearly informed that the survey was entirely voluntary, prior to distributing the questionnaire.

There were 56 incomplete responses, including responses that did not meet the eligibility criteria. The final number of usable questionnaires was 412. The study achieved an 88% response rate, which is very high. The survey was implemented by contacting potential respondents and obtaining their commitment to completing the questionnaire prior to distribution. When respondents understand the purpose of a study and are assured of respect for their privacy, researchers may enjoy a higher participation (Dillman, 1978; Flynn, Sakakibara, Schroeder, Bates, & Flynn, 1990). The demographic overview of the sample is presented in Table 2. Most importantly, in this study, most of respondents from ‘Confucian orbit’ culture have arrived in Australia less than 2 years ago, and their average age was between 18 to 24 years. Most of these respondents said that they had spent their formative years back in their home country (China, Hong Kong, Japan, Korea, Singapore and Taiwan).

Table 2: Overview of Sample Demographic

Variable		Frequency	Percentage
<i>Gender</i>	Female	217	52.6%
	Male	194	47.4%
<i>Age</i>	18-24 years	318	77.3%
	25-34 years	85	20.7%
	35-44 years	6	1.50%
	45-54 years	2	0.5%
<i>Ethnicity</i>	Caucasian	131	31.8%
	Chinese	122	30.0%

	Korean	34	8.2%
	Japanese	3	0.7%
	Taiwanese	2	0.4%
	Singaporean	1	0.2%
	Vietnamese	15	3.6%
	South Asian	39	9.4%
	Indian	31	7.5%
	Middle Eastern	17	4.1%
	African	6	1.5%
	Other	11	2.6%
<i>Year of Arrival</i>	More than 10 years ago	31	7.5%
	More than 5-10 years ago	27	6.5%
	More than 3 years ago	36	8.7%
	Less than 2 years ago	152	37%
	Born in Australia	166	40.3%

3.6 DATA PREPARATION

Prior to statistical testing, the data was rigorously screened, cleaned and tested for non-response errors. This section details the procedures undertaken in obtaining the final usable sample of 412.

3.6.1 Data screening and cleaning

The completed questionnaires were manually sorted and then data was coded into an *Excel* file. During the coding process, the data was screened for unreliable responses in which the respondent provided straight-line answers to almost all questions, resulting in the removal of 8 cases. The data was then loaded on IBM software package SPSS version 22 in order to screen and clean non-response errors and the variables were recoded. In order to test and compare differences between two groups, the data set was divided into Caucasian and Confucian Orbit group.

3.7 METHODOLOGY OF DATA ANALYSIS

Structure equation modelling (SEM) was used via IBM SPSS AMOS version 22, to statistically test the associations between variables as hypothesised in the conceptual model (Figure 1). A two-step approach to SEM was used in this study as recommended by Anderson and Gerbing (1988). First, the measurement models, which involve a Confirmatory Factor Analysis (CFA) were specified and developed to assess the validity and reliability of the latent indicators constructs. Second, the full structural model was tested to specify the

relationship effect between variables. Then the structural model procedure was evaluated to judge the ‘fit’ among the latent indicators. Data analysis took place in three phases, as described below.

3.7.1 Exploratory factor analysis

First, an Exploratory Factor Analysis (EFA) was tested via SPSS to determine to what extent the observed variables are linked to underlying factors. Thus, this procedure was used to address the first research objective of this study: to determine how Confucianism affects the work ethic of individuals. EFA is particularly appropriate for scale development (Hurley et al., 1997). The process of the EFA is a critical methodological decision for researchers in deciding how many factors to retain (Floyd & Widaman, 1995; Hayton et al., 2004)

Bartlett’s Test of Sphericity (significant level of $p < .05$) used to confirm that sample data has patterned relationships (Yong & Pearce, 2013). Then the Kaiser-Meyer- Olkin Measure (KMO) was tested to confirm adequacy of sampling data. The value of KMO is between 0 and 1 and it should be great than 0.5 if the sample is adequate (Field, 2005). Furthermore values between 0.5-0.7 are mediocre, values between 0.7-0.8 are good, values between 0.8-0.9 are great and values above 0.9 are superb (Hutcheson & Sofroniou, 1999). Following that, the instrument was analysed by calculating the Cronbach’s alpha, which shows a coefficient of reliability (Gliem & Gliem, 2003). George and Mallery (2003) provide the following rules of thumb: above 0.9 is excellent, above 0.8 is good, above 0.7 is acceptable, above 0.6 is questionable, above 0.5 is poor, and below 0.5 is unacceptable.

In exploratory analyses, factor loadings are generally considered to be meaningful when they exceed 0.30 or 0.40 (Flynn et al., 1990). Therefore, factor loadings that below 0.3 were removed and Cronbach’s alpha coefficient recalculated for the remaining items after each omission. This resulted in three factors with Cronbach’s alpha values above 0.72. The results are presented in Tables 5 and 6 of Chapter 4.

3.7.2 Confirmatory factor analysis

Confirmatory factor analysis (CFA) is a type of structural equation modelling that is part of measurement models (T. A. Brown, 2015). This procedure provides guidelines for ‘model trimming,’ or model modification that can suggest alterations in proposed factor structures. Thus, CFA is used to revise and refine instruments and their factorial structure (Floyd & Widaman, 1995).


A CFA was performed via IBM SPSS AMOS 22 for each of the latent constructs. This process was performed three times, once for each of the models with their respective data sets. For each separate group (i.e. Caucasian group and Confucian orbit), CFA was conducted on *all* of the latent constructs combined, and then the factor loadings, standardised estimates and squared multiple correlations were assessed. Upon assessment, any items with squared multiple correlations less than 0.40 were removed from the measurement model (Nunnally, 1978). Removing these low loading items, minor adjustments were made to achieve a good model fit. These results are presented in Table 7 of Chapter 4.

3.7.3 Measurement model and structure model

Measurement model

The measurement model of SEM assesses how the measured variables combine to identify underlying hypothesised constructs. CFA is used in testing the measurement model and the hypothesised factors are referred to as ‘latent variables’. All constructs involved in the study should be assessed together if possible. This method is called a ‘pooled CFA’. In this process, the lowest factor-loading item was deleted for every construct to define a latent variable more accurately as well as to create a strong relationship between them (Weston & Gore, 2006). According to Bollen (1989), models should include constructs with at least single indicators. For this study, one of the Confucian variables, humility, was found to be poorly correlated with other constructs. Thus, it was deleted.

Structural model

In SEM, it is easy to conceptualise models in graphical forms. In these graphical forms, a directional arrow (\rightarrow) is used to indicate a hypothesised causal direction. The variables to which arrows are pointing are commonly termed ‘dependent variables’ (endogenous variables) and the variables having no arrows pointing to them are called ‘independent variables’ (exogenous variables). The curved arrow () indicates a co-variance with no implied directional effect between exogenous variables. Latent constructs are enclosed in circular shape and observed variables are enclosed in rectangular boxes (Lei & Wu, 2007).

Equations in the structural portion of the model specify hypothesised relationships among latent variables. Figure 3 shows the one hypothesised structural model that tested with pooled data for this study. The model hypothesise that a work ethic is a function of an individual’s level of respect and discipline. According to Baron and Kenny (1986), an indirect effect is the relationship between an independent latent variable and a dependent latent variable that is

mediated by one or more latent variables. As such, respect and discipline, in turn are derived by an individual's Confucian values beliefs (face saving and reciprocity) for displaying a strong work ethic. In other words, respect and discipline mediate the effects of face saving and reciprocity on work ethics.

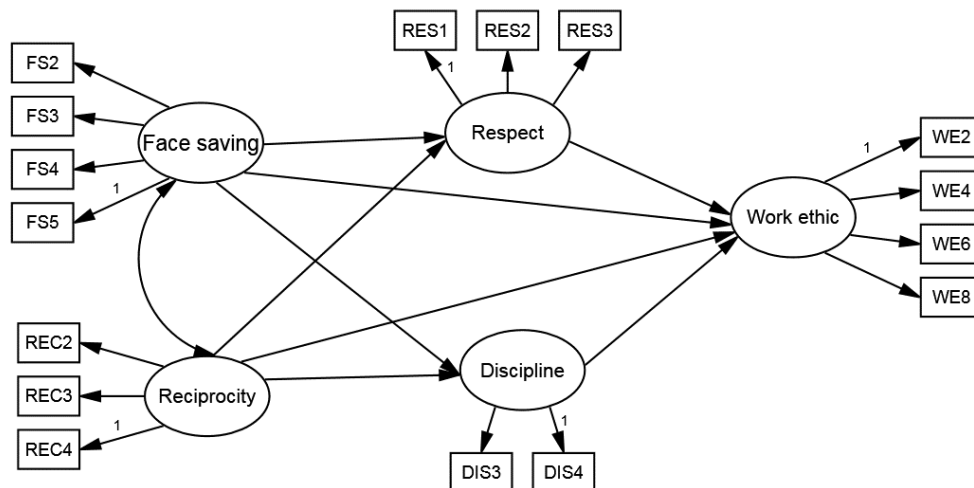


Figure 3: structural model – pooled data

3.7.4 Model specification

Model specification has become much easier with recent versions of the software IBM SPSS AMOS 22. It allows drawing the path diagram for the model specification. The study's hypotheses were drawn into the form of a model, as seen in Figure 5. In Figure 5, the researcher specifies eight unidirectional paths, and one covariance.

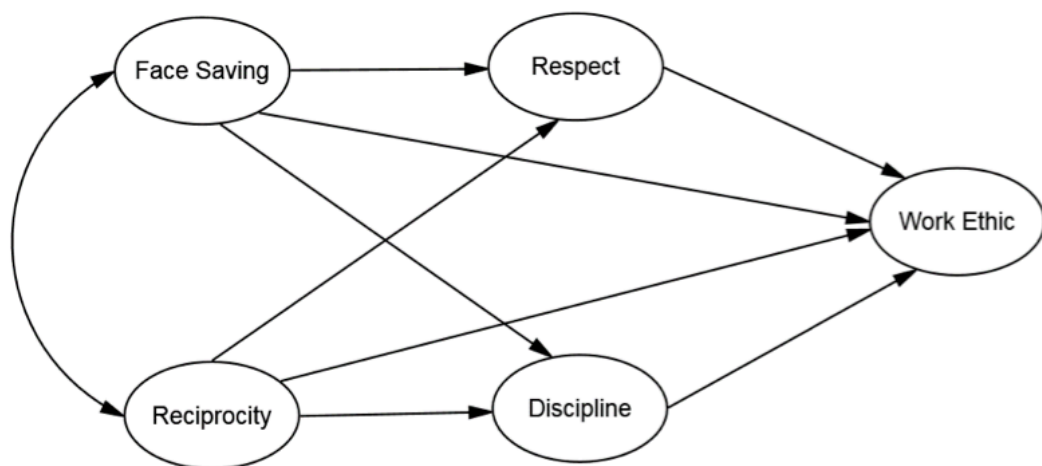


Figure 4: Model specification of causal paths

3.7.5 Model identification

The issue of model identification is complex. Fortunately, there are some established rules of thumb summarised by several researchers (Bollen, 1989; Byrne, 2013; Davis, 1993). These help researchers decide whether a particular model of interest is identified or not. But this is merely a necessary condition, not a sufficient one.

The 'two measure rule'

The 'two measure rule' states that a measurement model will be identified if every latent construct is associated with at least two observed indicators and every construct is correlated with minimum one other construct (Davis, 1993; Reilly, 1995). Pooled data, Caucasian group and Confucian orbit satisfy this rule.

Rank and order conditions

This is the most well-known rule for the structural equation model. These conditions are necessary and sufficient for identification of the structural model when all of the disturbance terms are allowed to correlate (Rigdon, 1995).

- If there are fewer data points than parameters to be estimated, then the model is ***under-identified***.
- If the number of data points equals the number of parameters to be estimated, then the model is ***just identified***.
- If the number of data points is greater than the number of parameters to be estimated, then the model is ***over-identified***.

Researchers can use the following formula to determine whether the model is over-identified (Weston & Gore, 2006)

$$(\text{no. observed variables} - [\text{no. observed variables} + 1])/2.$$

Recursive Rule

In satisfying all of the above requirements, both models were identified as recursive models. That is, that all causal effects were unidirectional and the model's disturbances were unrelated (Kline 2015). A recent contribution in this area can be found from Rigdon's 1995 study.

3.7.6 Model fit and assessment

Once the model for pooled data, Caucasian group and Confucian orbit are confirmed, the model's fit to the data must be evaluated. This process was done via IBM SPSS AMOS 22 to

address the second objective and its corresponding hypotheses: to demonstrate the moderating effects of respect and discipline with regard to Confucianism. Based on the social behaviour and statistical literature, three categories of model fit indices of SEM were obtained and assessed (Table 3).

Table 3: Categories of Model Fit Indices

	Index Abbrev.	Index Name	Acceptance Level	Supporting Literature
	Chi-square	Discrepancy of Chi-square	$p > 0.05$	Tabachnick & Fidell (2007)
Absolute Fit	GFI	Goodness of Fit Index	≥ 0.90	Joreskog & Sorbom (1984)
	AGFI	Adjusted Goodness of Fit	≥ 0.80	Tanaka & Huba (1984)
	RMSEA	Root Mean Square of Error Approx	≤ 0.07	Steiger (2007)
	SRMR	Standardized Root Mean Square Residual	≤ 0.08	Hu & Bentler (1999)
Incremental Fit	CFI	Comparative Fit Index	≥ 0.90	Bentler (1990)
	TLI	Tucker-Lewis Index	≥ 0.90	Bentler & Bonett (1980)
	NFI	Normed Fit Index	≥ 0.90	Bollen (1989)
Parsimonious Fit	Chisq/df	Chi-square/Degree of Freedom	≤ 5	Marsh & Hocevar (1985)

To evaluate the threshold fit for each index Hu and Bentler (1999) suggest a cut-off criterion above the conventional rule of thumb. All of these values should be close to the accepted cut-off points outlined in Table 3.

For all groups, polled data, Caucasian group and Confucian orbit's fit indices were confirmed as adequate, and the path estimates were examined in relation to the hypotheses specified at the end of Chapter 2. The results for the all group comparison are presented in Tables 11 and 13 of Chapter 4.

3.7.7 Split group SEM analysis: Caucasian group and Confucian orbit

The final objective of this study was to determine whether respondents' perceptions of Confucian values varied depending on their cultural orientation (i.e. level of Confucian value). The findings from the previous procedure did not reveal a distinct enough difference between the Caucasian ethnic group and Confucian orbit based on their perceived ethnicity, as presented in Figure 5 of Chapter 4.

CHAPTER 4: RESULTS

4.1 INTRODUCTION

The methodology chapter outlined the structure of the research design, method and procedures of the research survey, and how the statistical testing of IBM SPSS AMOS 22 is applied in this study. This chapter addresses the results based on the methods of analysis discussed in Chapter 3.

4.2 EXPLORATORY FACTOR ANALYSIS

This section presents the results of the Exploratory Factor Analysis (EFA) performed on the data from the 24-item Confucian Value scale, the six variables each for respect and discipline and the eight variables for work ethic.

4.2.1 Confucian value scale

An EFA administered on the 24-items using Maximum Likelihood and Varimax rotation on the Confucian Value scale resulted in the extraction of five factors, as seen in Table 5. An examination of the Kaiser-Mayer Olkin measure of sampling adequacy suggested the sampled data was factorable ($KMO = 0.872$). In following Flynn et al (1990) instructions, items with factor loadings lower than 0.40 were removed.

Cronbach's alpha tests were conducted to check for internal consistency and reliability among the variables. Three variables, Face Saving (FS), Reciprocity (REC) and Humility (HUM) revealed a Cronbach's alpha greater than 0.7 (See Table 4) (above the acceptance level of 0.70), and two variables, Hierarchy (HIE) and Group Orientation (GO) resulted Cronbach's alpha below 0.7. Therefore, only FS, REC and HUM could remain for CFA.

Table 4: Exploratory Factor Analysis Loading of Confucianism Scale

Factors	Component					Cronbach Alpha Cut-off ≥ 0.7
	1	2	3	4	5	
FS1	.781					0.718
FS2	.742					
FS5	.731					
FS3	.691					
REC3		.845				0.765

REC2	.820			
REC5	.813			
HUM2		.884		0.721
HUM1		.884		
HIE4			.850	0.674
HIE3			.850	
GO4				.810
GO2				.810

*Note: Extraction method, factor analysis; Rotation method, Varimax with Kaiser Normalization. Only FS, Rec and Hum were retained for CFA as they were greater than 0.7.

Table 5: EFA for latent constructs

Construct	Item	Factor loading	Cronbach's Alpha (Cut-off ≥ 0.7)
Face saving	FS1	0.781	0.718
	FS2	0.742	
	FS5	0.731	
	FS3	0.691	
Humility	HUM1	0.884	0.721
	HUM2	0.884	
Reciprocity	REC3	0.845	0.765
	REC4	0.820	
	REC2	0.813	
Respect	RESP1	0.855	0.745
	RESP2	0.816	
	RESP3	0.780	
Discipline	DIS3	0.864	0.747
	DIS4	0.832	
	DIS1	0.745	
Work Ethic	WE8	0.766	0.717
	WE4	0.728	
	WE6	0.681	
	WE2	0.628	
	WE7	0.619	

The Bartlett's test of sphericity was all 0.000 (significant) for respect and discipline and work ethic. An examination of the KMO measure of sampling adequacy was 0.727, 0.772 and 0.825 respectively. Cronbach's alpha of all variables resulted greater than 0.7 as table shown above. The survey items measuring each variable and the internal reliability (Cronbach's alpha) of the scales can be found in Appendix C.

4.3 MEASUREMENT MODEL SPECIFICATION & VALIDATION

Confirmatory factor analysis (CFA) is the first step of the SEM procedure. CFA is the most useful in the later stages of measure development to refine and improve instruments. CFA used to determine whether a proposed factor structure ‘fits’ adequately as well as parsimoniously with the hypothesised model (McKnight, Choudhury, & Kacmar, 2002).

The study clearly addresses that humility (HUM), one of the latent constructs, was removed during the process of CFA. The decision was made based on Bollen’s (1989) suggestion. He strongly discourages construct model testing with single indicator. After EFA, each of the latent variables is represented by three to five measures (or indicators), however, HUM is represented by only two indicators. As such, HUM is resulted that remained only one measure during the CFA process. Therefore, HUM is not included for further SEM in this study.

4.3.1 Confirmatory factor analysis

The CFA model fit statistics for each construct were calculated for each model, pooled data, Caucasian and Confucian orbit group. The model fit indices can be found in Table 6a for pooled data, in Table 6b for Caucasian group and 6c for Confucian orbit.

For pooled data, all variables (face saving, reciprocity, respect, discipline and work ethic) were found to be over-identified. The face saving, respect and discipline of Confucian orbit group CFI achieved best fit (1.000), while the CFI of pooled data for respect was close to best fit (0.994), falling well within the cut-off point. GFI for face saving, reciprocity and work ethic were above the cut- off (0.9) for all groups, signifying an exceptional model fit. The RMSEA value for discipline of Confucian orbit group suggests a close model fit, while that of discipline of pooled data falls within reasonable error of approximation.

For pooled data, all variables were close to best fit for GFI and fell within the cut-off points. Respect and discipline were the closest to best fit for CFI value, and work ethic CFI value indicated exceptional model fit. Close model fit was suggested by the RMSEA value for work ethic, while this value for discipline fell slightly above the reasonable error of approximation.

Overall, both Caucasian group and Confucian orbit models showed good model fit for all variables. For Caucasian group respect and discipline, model chi-square test result was not calculated as the model found to be just-identified (Weston & Gore, 2006). For Confucian orbit, only respect found to be just-identified. Thus, these variables were assumed that the model perfectly fit the data (Kline 2015).

Table 6a: Confirmatory Factor Analysis (CFA): model fit indices: pooled data

Pooled Data								
Variable (Cut-off)	χ^2	df	χ^2/df ≤ 5	GFI ≥ 0.9	AGFI ≥ 0.8	TLI ≥ 0.9	CFI ≥ 0.9	RMSEA ≤ 0.05
Face saving	9.454	2	4.727	0.988	0.941	0.960	0.973	0.054
Reciprocity	7.780	2	3.890	0.991	0.956	0.943	0.981	0.040
Respect	3.963	2	1.982	0.995	0.976	0.982	0.994	0.049
Discipline	5.806	2	2.903	0.993	0.966	0.973	0.991	0.068
Work Ethic	11.538	9	1.282	0.991	0.979	0.989	0.993	0.026

Table 6b: Confirmatory Factor Analysis (CFA): model fit indices: Caucasian group

Caucasian Group								
Variable (Cut-off)	χ^2	df	χ^2/df ≤ 5	GFI ≥ 0.9	AGFI ≥ 0.8	TLI ≥ 0.9	CFI ≥ 0.9	RMSEA ≤ 0.05
Face saving	3.514	2	1.757	0.988	0.938	0.966	0.989	0.056
Reciprocity	3.313	2	1.656	0.987	0.934	0.964	0.988	0.061
Respect	*	*	*	1.000	1.000	1.000	1.000	0.000
Discipline	*	*	*	1.000	1.000	1.000	1.000	0.000
Work ethic	6.923	5	1.385	0.979	0.936	0.947	0.974	0.054

*Note: For Respect and Discipline models, chi-square tests were not calculated, as these models were just-identified. It can assume that the model perfectly fit the data.

Table 6c: Confirmatory Factor Analysis (CFA): model fit indices: Confucian orbit

Confucian Orbit								
Variable (Cut-off)	χ^2	df	χ^2/df ≤ 5	GFI ≥ 0.9	AGFI ≥ 0.8	TLI ≥ 0.9	CFI ≥ 0.9	RMSEA ≤ 0.05
Face saving	0.246	2	0.884	0.999	0.997	1.000	1.000	0.034
Reciprocity	12.311	5	2.462	0.973	0.918	0.924	0.952	0.059
Respect	*	*	*	1.000	1.000	1.000	1.000	0.000
Discipline	4.533	5	0.907	0.990	0.970	1.004	1.000	0.000
Work ethic	18.647	14	1.332	0.972	0.945	0.969	0.979	0.043

*For Respect model, the chi-square test was not calculated, as these models were just-identified. It can assume that the model perfectly fit the data.

4.4 STRUCTURAL EQUATION MODEL

After confirming that the measurement model adequately fit the data, the structural model for pooled data, Caucasian group and Confucian orbit were examined to specify the hypothesised relationships among latent variables (Face saving, Reciprocity, Respect, Discipline and Work ethic). This section presents the three models developed for pooled data, Caucasian group and

Confucian orbit, from the data obtained in this study. Each model was assessed for its overall fit indices and it explains how well the model fits the data and details the hypothesised path estimates between variables. R-squared value (Squared multiple correlations) was also checked and presented.

Table 7 presents the model fit indices for pooled data, Caucasian and Confucian orbit models and their corresponding levels of acceptance based on generally accepted rules of thumb (Hu & Bentler 1999; Bollen 1989). All fit indices for pooled data, Caucasian group and Confucian orbit models suggested an excellent fit.

Table 7: Model fit indices for pooled data, Caucasian group and Confucian Orbit.

	Fit indices			Cut-off points
	Pooled data	Caucasian Group	Confucian Orbit	
χ^2	148.878	54.699	99.042	Small, $p > 0.05$
df	93	45	81	
χ^2/df	1.601	1.216	1.223	≤ 5
SRMR	0.0434	0.0613	0.05	≤ 0.08
RMSEA	0.038	0.041	0.036	≤ 0.05
GFI	0.957	0.937	0.933	≥ 0.9
AGFI	0.937	0.891	0.901	≥ 0.8
TLI	0.952	0.954	0.965	≥ 0.9
CFI	0.963	0.968	0.973	≥ 0.9

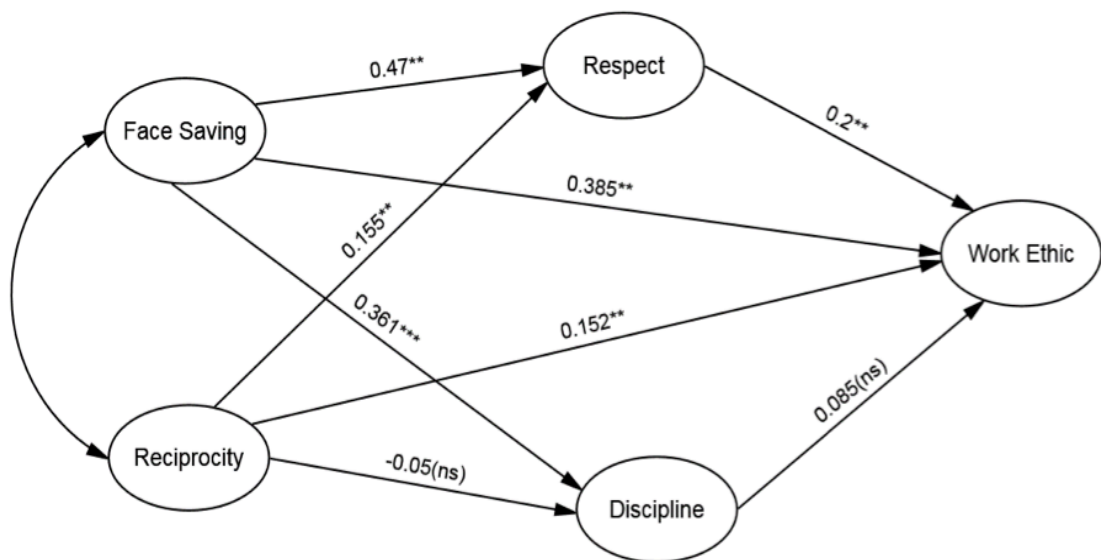
For pooled data, Chi-square statistics tests indicated that Confucianism (face saving and reciprocity) ($p=0.021$) and discipline ($p=0.05$) were found to be statistically significant ($p < 0.05$), and respect ($p=0.138$) and work ethic ($p=0.086$) were not significant. For Caucasian model, Chi-square statistics tests indicated that Confucianism, discipline and work ethic were not significant as $p=0.221$, $p=0.475$ and $p=0.179$ respectively. For Confucian orbit model, Chi-square statistics tests indicated that Confucianism and work ethic were also not significant ($p=0.331$ and $p=0.085$ respectively). The Chi-square statistics tests for both Caucasian and Confucian orbit models are relatively high but other fit indices (GFI, TLF and CFI) were below the specified cut off points (Table 7). Overall, these indices confirm that the model fit is acceptable for all models. In sum, in the assessment of all variables in the CFA for all pooled data, Caucasian and Confucian orbit models showed acceptable fit. As the factors were confirmed, overall models for three groups were subsequently assessed via regression weights.

4.4.1 Pooled data

For pooled data, the work ethic measure was fully mediated by respect (Figure 5). In other words, both face saving and reciprocity explained the work ethic variable when they were mediated by respect, one of the Confucian pedagogical approaches. Four partial relationships found between face saving and respect, between face saving discipline, between respect and work ethic and between discipline and work ethic. All direct relationships explained work ethic that between face saving and work ethic and between reciprocity and work ethic. However, discipline did not explain work ethic in this model.

The model also showed that face saving was highly significantly associated with discipline while reciprocity has a significant relationship with respect. There were also significant relationships found between face saving and respect, between respect and work ethic, between face saving and work ethic and reciprocity and work ethic.

Figure 5 also presents the model fit indices for the pooled data model, and their corresponding levels of acceptance are based on generally accepted rules of thumb (Bollen, 1989; Hu & Bentler, 1999; Jarvis, MacKenzie, & Podsakoff, 2003). The Chi-square statistic was large and significant ($p < 0.001$). Standardized root mean square residual (SRMR), goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI), Normed Fit Index (NFI), Tucker-Lewis index (TLI), comparative fit index (CFI) and root mean square error of approximation (RMSEA) presented as below.



Chi-square=148.878, Degree of freedom=93, Chi-square/DF=1.601, SRMR=0.0434, GFI=0.957, AGFI=0.937, NFI=0.908, TLI=0.962, CFI=0.963, RMSEA=0.038 (np=non significant, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.001$)

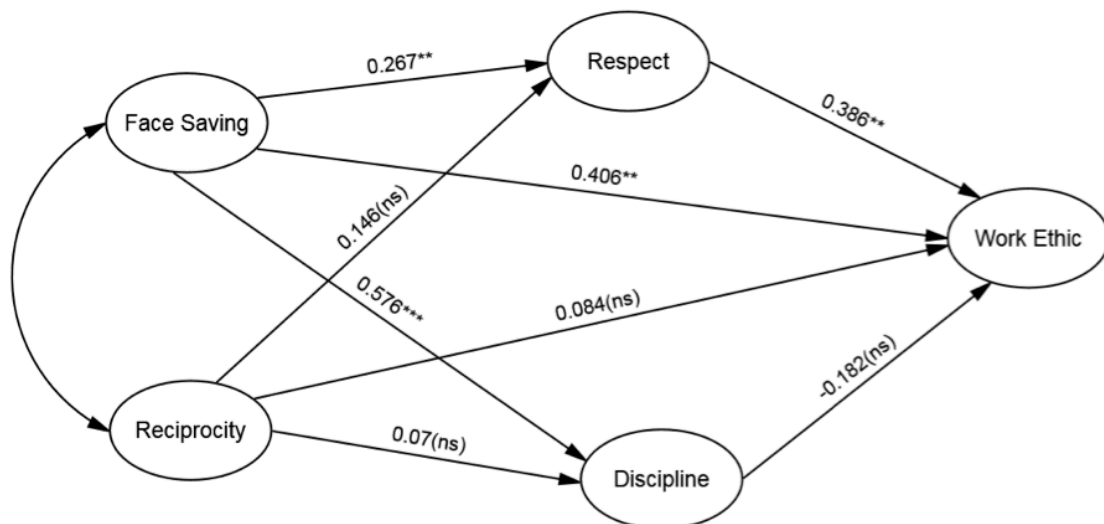
Figure 5: Work ethic pooled data model

4.4.2 Caucasian group

For the Caucasian group, work ethic was also fully mediated by respect (Figure 6). In this model, face saving explained work ethic when it was mediated by respect. Face saving also directly explained work ethic. Three partial relationships were found between face saving and respect, between face saving and discipline and between respect and work ethic. Also there is only one direct relationship found between face saving and work ethic. However, discipline did not explain work ethic in this model.

Face saving has a highly significant and positive relationship with discipline. However, there was no significant association between discipline and the work ethic, see Figure 6 below.

Respect was also the only pedagogical approach found to significantly predict work ethic and face saving and work ethic also was significantly related (See Figure 6).



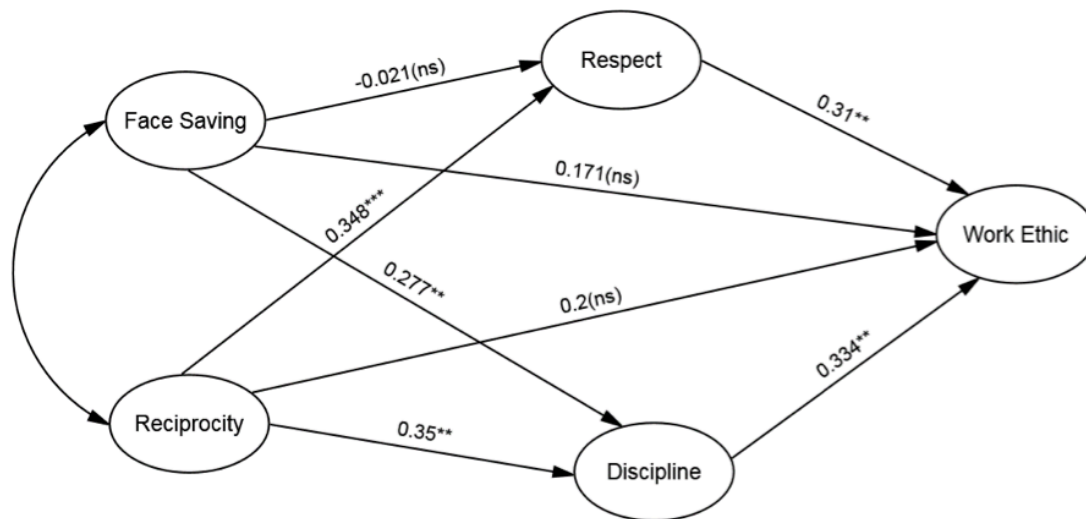
Chi-square=54.699, Degree of freedom=45, Chi-square/DF=1.126, SRMR=0.0613, GFI=0.937, AGFI=0.891, NFI=0.970, TLI=0.954, CFI= 0.968, RNSEA=0.041(np=non significant, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.001$)

Figure 6: Work ethic Caucasian model

4.4.3 Confucian Orbit

For the Confucian Orbit group, work ethic was fully mediated by respect and discipline (Figure 7). In other words, there were two fully mediated relationships. In detail, face saving explained work ethic when it was mediated by discipline and reciprocity explained work ethic when it was mediated by respect. A total of five partial relationships were found between face saving and discipline, between reciprocity and respect, between reciprocity and discipline, between respect and work ethic and discipline and work ethic. Direct relationships were not found in this model.

In contrast to Caucasian group, the Confucian orbit group showed that reciprocity was very significantly associated with respect and the only significant association was found between face saving and discipline. Both respect and discipline were found to significantly predict work ethic. However, direct relationships were not significant between face saving and work ethic and between reciprocity and work ethic.



Chi-square=99.042, Degree of freedom=81, Chi-square/DF=1.223, SRMR=0.05, GFI=0.933, AGFI=0.901, NFI=0.872, TLI=0.965, CFI= 0.973, RNSEA=0.036 (np=non significant, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.001$)

Figure 7: Work ethic Confucian orbit model

CHAPTER 5: DISCUSSION

5.1. INTRODUCTION

This chapter provides interpretations of the research findings in relation to the objectives of the study. The first discussion addresses the explanatory power of the four variables tested to explain work ethic in this study: face saving, reciprocity, respect and discipline. The second discussion addresses the role Confucian variables, specifically, face saving and reciprocity, play in the creation and support of work ethic. The third discussion addresses the role of two mediating factors representing Confucian pedagogical approaches: respect and discipline. Lastly, the two models for the Caucasian and Confucian orbit groups will be contrasted.

5.2. EXPLANATORY POWER

The first analysis (Table 8) was concerned with the overall explanatory power of the three models to explain work ethic. The pooled data model explains 40% ($R^2 = 0.400$) of work ethic, in contrast to the Caucasian group model where the model was found to explain 36% ($R^2 = 0.360$). The highest explanatory power was found for the Confucian orbit model where 45% ($R^2 = 0.452$) of work ethic could be explained. Given that the model is based on Confucianism and a Confucian pedagogical approach, it was anticipated that the explanatory power would be highest for the Confucian Orbit group, and the study found that indeed the explanatory power for that group was roughly 10% higher than for the Caucasian group (45% vis-à-vis 36%).

In line with this study, Bauman, Hamin and Yang (2016) also analysed pedagogical approaches to work ethic for 10 countries. According to Baumann and his colleague's study, 10-37% of work ethic was explained in the 10 countries. For example, China 23%, Japan 10.2%, Singapore 23.4%, South Korea 18.3%, Australia 22.3%, Germany 18%, UK 19.1% and the USA 18.7%. Given that fact that their study also analyses roles of the pedagogical approach in forming work ethic, the explanatory power was lower than this study (36%-45%). Moreover, similar to this study, their explanatory power of work ethic was considerably lower for Western countries compared to Asian countries. Baumann et al (2016) noted that the larger non-explained variation in Western countries could be explained by different pedagogic approaches compare to East Asian's. Indeed, in the Western context, the education more commonly used playful learning and often focused on creativity (Craft, 2003; Wood & Attfield, 2005).

Going back to table 8, face saving and reciprocity explain roughly 31% of respect ($R^2 = 0.307$) for the pooled data model, only 11% ($R^2 = 0.113$) for the Caucasian group model, but a substantial 39% ($R^2 = 0.385$) for the Confucian orbit model. Face saving and reciprocity also explain nearly 36% of discipline ($R^2 = 0.358$) for Caucasian group, and only 11% for Confucian orbit and pooled data ($R^2 = 0.108$ and $R^2 = 0.118$ respectively).

Table 8: R^2 values for variables in Confucian orbit and Caucasian group

Variables	Pooled Data	Caucasian Group	Confucian orbit
Respect	0.307	0.113	0.385
Discipline	0.118	0.358	0.108
Work ethic	0.400	0.360	0.452

The second analysis was concerned with the relative contribution of each variable: respect and discipline in the model. Table 9 a, b and c show the R^2 values, representing the relative contribution of each independent (face saving, reciprocity) and mediating (respect and discipline) variable to work ethic for pooled data, Caucasian group and Confucian orbit respectively. Contribution to R^2 is calculated as the proportion of the path coefficient multiplied by the coefficient correlation and path coefficient ($\beta * r / \beta$).

Table 9a: Explanatory power in explaining work ethic - pooled data

	Face saving	Reciprocity	Respect	Discipline
Correlation	0.528	0.397	0.497	0.286
Path coefficient	0.385	0.162	0.197	0.085
Correlation*Path coefficient	0.21	0.064	0.097	0.024
Contribution to R^2 (%)	53%	16.1%	24.5%	6.4%
Cumulative (%)	53%	69.1%	93.6%	100%

Table 9b: Explanatory power in explaining work ethic – Caucasian group

	Face saving	Reciprocity	Respect	Discipline
Correlation	0.415	0.28	0.469	0.224
Path coefficient	0.406	0.084	0.368	0.128
Correlation*Path coefficient	0.16	0.022	0.165	0.028
Contribution to R ² (%)	44 %	5.1%	44%	6.9%
Cumulative (%)	44%	50.1%	94.1%	100%

Table 9c: Explanatory power in explaining work ethic – Confucian orbit

	Face saving	Reciprocity	Respect	Discipline
Correlation	0.309	0.509	0.551	0.425
Path coefficient	0.171	0.197	0.306	0.334
Correlation*Path coefficient	0.052	0.100	0.168	0.141
Contribution to R ² (%)	11.5%	21%	37.1%	30.4 %
Cumulative (%)	11.5%	32.5%	69.6%	100%

For the pooled data (Table 9a), the variable with the greatest predictive power is face saving, which, in terms of R², explains 53% of work ethic. This result is followed by respect, explaining 24.5% of work ethic, reciprocity that accounts for 16.1% and discipline, explaining only 6.4%. For the Caucasian group (Table 9b) face saving and respect, both contributed to the R² of work ethic at 44%. In contrast, reciprocity and discipline only contributed 5.1% and 6.9% to work ethic respectively. For Confucian orbit (Table 9c), respect made the greatest contribution to work ethic at 37.1% and was followed by discipline, which explained 30.4% of work ethic. Reciprocity explained 21% of contribution to work ethic and face saving accounted for 11.5%.

The finding of the two groups under investigation revealed, in essence, two distinct patterns. For the Confucian orbit, work ethic is determined by a factor of discipline and respect in addition to the determinants also found in Caucasian group: face saving and respect. In other words, the two largest relative contributions for Confucian orbit model were respect and discipline. However, respect also highly contributed to work ethic for both the Caucasian

group and Confucian orbit models. These findings are also in agreement with the Baumann et al (2016) study because they also measured “strict discipline” and “respect” to explain work ethic. Interestingly, strict discipline was significantly associated with work ethic in most East Asian countries (China, Japan and Singapore). However, there was no significant association in the Western countries. Respect was significantly associated with work ethic for East Asian nations (Japan and Singapore) as well we for Western countries (Australian, Germany and the USA).

In sum, the findings of this study show higher R^2 of work ethic compared to the very recent study from Baumann et al (2016). The reason why this study shows stronger explanatory power may be from the contributions of Confucianism. This study not only investigated the Confucian pedagogical approach but also face saving and reciprocity, which are also Confucianism contribution factors to work ethic. There is strong evidence that Confucian orbit countries have different culture and education. Thus, this study shows that the main East Asian cultural factor, Confucianism and Confucian pedagogical approaches contribute to a strong work ethic.

5.3 RELATHIONSHIPS BETWEEN CONFUCIANISM AND WORK ETHIC

5.3.1 Direct Relationships: Confucianism and Work Ethic

This study looked at 3 different relationships between Confucianism and work ethic: direct, mediated and partial relationships and this section addressed the direct relationship. Based on the study results, only one significant direct relationship has been found for Caucasian group. While the Confucian orbit did not show a direct relationship between face saving and work ethic, the Caucasian group did show a direct relationship. (Please refer to Table 10a). This also indicates that face saving is not unique to individuals of East Asian ethnicity, and the Caucasian ethnic group holds many of the same values.

Table 10a: Summary Overview of Hypotheses: Direct relationships

Table of Hypotheses and Results	Caucasian Group	Confucian Orbit
H_{D1} : Face Saving has a significant impact on work ethic.	Supported	Not supported
H_{D2} : Reciprocity has a significant impact on work ethic.	Not supported	Not supported

H_D denotes hypotheses regarding direct relationships

Indeed, Brown and Levinson (1978) noted that face-concern is common across cultures and varies according to the situation. Brew and Cairns (2004) also argued that individualists from Western contexts will be more or less assertive to face-concern. According to Brew and Cairns's (2004) empirical study, Anglo Australians were very keen to save face for themselves with direct communication and less concerned with saving face for others, while Chinese counterparts were more concerned with other-face than self-face. Moreover, Anglo Australians were more concerned to save their own face regardless of status. This study supports the results that Caucasian group has a relationship between face saving and work ethic. Also it could explain that Caucasian group may interest to protect self-face therefore it links to their work ethic as it can be a judgement how others see them in the society.

However, in the East Asian societies, face is more related to social standing, thus losing face would be signal of losing status for those who were ranked highly (Kim & Nam 1998). For high status individuals, loss of self-face can be seen as a result of losing respect from others and could damage the hierarchical relationship between superior and subordinate. On the other hand, for subordinates, self-face maintenance is less important than avoiding damage of the relationship with superiors. The relationship between Confucianism and work ethic for Confucian group was not supported in the direct relationship model. Therefore, these results strongly required SEM testing to examine the mediated relationship, which explained Confucian pedagogical approaches between Confucianism and work ethic.

5.3.2 Mediated relationships: Confucianism, Confucian Pedagogical Approach and Work Ethic

One of the objectives of this study was to investigate the mediating role (Confucian pedagogical approach) of respect and discipline for work ethic. Specific hypotheses were assessed based on the mediated relationships between Confucianism. Five hypotheses were supported, as presented in Table 10. In Confucian orbit model, 3 hypotheses were supported while 2 hypotheses were supported in the Caucasian model groups. Thus, and the final hypothesis of work ethic is stronger in Confucian orbit *vis-a-vis* Caucasian group.

It was found that respect and discipline significantly mediated the relationship between reciprocity and work ethic for Confucian orbit. In other word, Confucian pedagogical approaches influenced work ethic for Confucian orbit groups. For the Caucasian group, only respect showed a significantly mediated the relationship between reciprocity and work ethic. Thus reciprocity is a common driver of work ethic for both Caucasian group and Confucian orbit, mediated by respect.

The findings of the study indicate that reciprocity is associated with respect in both a Western and Eastern context. Indeed, in the West, reciprocity plays a major role in concept of social relationships. In the East, reciprocity represents a golden rule that governs almost all kinds of interpersonal relationships in Confucian societies (Tu 1998a).

In particular, Confucian teachings strongly emphasise that one should treat others as one would like to be treated (Monkhouse et al., 2013). Confucian culture educates people about how they should behave to others and how it is necessary for one to return a favour. As this study stressed earlier, in the literature review, people are taught to not calculate what they have received and the return of favours should not be forced by external parties (Yum, 1988). Thus, reciprocity can be regarded as an expectation of social responsibility among people (similar to the Western perspective) as well as a value that educates people.

The interesting finding from this study is the undeniable role of respect in the formation of work ethic. Although the explanatory power of work ethic was lower in Caucasian group than Confucian orbit group, both models explain how Confucianism is well linked to work ethic when respect was mediated. This supports the hypothesis that one who has a higher level of respect creates higher work ethics.

However, an important finding is that respondents from Confucian orbit significantly linked to work ethic mediated by discipline while discipline did not work as a mediating factor for the Caucasian group. In simple terms, discipline only applied to the Confucian orbit model and strongly linked between Confucianism and work ethic. This study's findings are in line with the education literature, where discipline was associated with academic performance (Luiselli, Putnam, Handler, & Feinberg, 2005; Pellerin, 2005); student misbehaviour and effective classroom management (Ding et al., 2008) ; and the students' competitiveness (Baumann & Hamin, 2011). Essentially the importance of discipline is not a new concept in educational literature for academic achievement. As this study investigated, a wider range of plausible explanations has been used to combine concepts, theoretical and practical research.

Pellerin (2005) developed various school disciplines based on the Baumrind's parenting typology (Baumrind, 1966), which originally classified parenting style as permissive, authoritarian and authoritative. Pellerin (2005) focused on finding the best type of discipline to develop students. Her study demonstrated the "authoritative style", i.e: being demanding and responsive to children's needs and behaviour" achieved the best results both at school and home.

Baumann and Hamin (2011), also explained that there are different school discipline approaches between East Asian and Western countries. While East Asian education placed emphasis on strict discipline, the West pursued a more child-centric and indulgent approach. Although there is little dispute between Asian and Western pedagogical approaches, there are more than 800 studies concerned with school discipline problems and challenging behaviours (Luiselli et al., 2005). In the West, academic under-achievement and antisocial behaviour among students remain a concern for parents, educators and the general public (Durlak, 1995; Lowell, 2002). These concerns about student discipline have prevailed in the Western education industry for a long time. Thus, many intervention and prevention-focused programs have been introduced to improve moral development, to promote exemplary social skills and strengthen academic competencies (Luiselli et al., 2005).

In contrast, some studies have examined students from different Confucian orbit countries as a monolithic group rather than comparing students from Western/Caucasian countries. For instance, Stankov (2010) explained that students from a culture informed by Confucianism have an unforgiving attitude toward under-achievement and misbehaviour, which brings about the effort and persistence needed for high levels of academic performance. He argues that Confucian Asian students show strong work behaviour towards achievement. Zakaria (1994) also pointed out that East Asian education shares a tradition of strict school discipline, such as; respect for teachers, no talking back, properly completing homework, reporting to class on time, and not interrupting in class.

This study establishes significant differences in the levels of discipline between Caucasian and Confucian orbit groups. Confucian orbit explains that Confucianism significantly impacts work ethics, mediated by respect and discipline. This study found that respect has a significant impact on work ethic for both Caucasian and Confucian orbit groups, demonstrating that respect has a crucial role for work ethic, regardless of ethnicity. This importance of respect has been recognised by Lee Kuan Yew, the first Prime Minister of Singapore. He argued that respect for academia and a belief in hard work led to Singapore's enormous economic growth (Zakaria & Lee 1994). Furthermore, Lankard (1990) noted that ones' good work habits and attitudes are a key determinant of employability. Thus, attitudes of respect and the concept of a strong work ethic are desirable characteristics for potential employees (Hill, 1992).

Table 10b: Summary Overview of Hypotheses- Mediated Relationships

Table of Hypotheses and Results	Caucasian Group	Confucian Orbit
H_{M1} : Face Saving has a significant impact on work ethic mediated by respect.	Supported	Not supported
H_{M2} : Face Saving has a significant impact on work ethic mediated by discipline.	Not supported	Supported
H_{M3} : Reciprocity has a significant impact on work ethic mediated by respect.	Supported	Supported
H_{M4} : Reciprocity has a significant impact on work ethic mediated by discipline.	Not supported	Supported

H_M denotes hypotheses regarding mediated relationships.

5.3.3 Partial relationships: Confucianism, Confucian Pedagogical Approach and Work Ethic

In order to gain a more holistic understanding of the full extent of the model, the study looked at partial relationships in the model (Table 10c). The partial relationship means that there was no full mediated relationship in the model and the relationship is significant only for either Confucianism to Mediating factors or Mediating factors to Work ethic. One hypothesis was supported for each Caucasian group and Confucian orbit. For Caucasian group, only a partial relationship found between face saving and discipline and one also found between respect and work ethic for Confucian orbit.

Table 10c: Summary Overview of Hypotheses- Partial Association

Table of Hypotheses and Results	Caucasian Group	Confucian Orbit
H_{P1} : Face Saving has a significant impact on respect.	Not supported	Not supported
H_{P2} : Face Saving has a significant impact on discipline.	Supported	Not supported
H_{P3} : Reciprocity has a significant impact on respect.	Not supported	Not supported
H_{P4} : Reciprocity has a significant impact on discipline.	Not supported	Not supported
H_{P5} : Respect has a significant impact on work ethic.	Not supported	Supported
H_{P6} : Discipline has a significant impact on work ethic.	Not supported	Not supported

H_P denotes hypotheses regarding partial relationships.

For the Caucasian group, face saving was associated with discipline, but discipline was not then associated with work ethic. Thus, it did not show a fully mediated relationship. This also highlights a crucial difference between the two groups. In contrast, the Confucian orbit group show face saving was not associated with respect but only respect associated with work ethic. However, SEM explained that reciprocity impacts on work ethic were mediated by respect As such, respect could be seen as a key-mediating factor to explain work ethic, although there is a partial relationship between respect and work ethic. Thus, a partial relationship does not

support the notions that SEM was required to fully understand the mechanism between Confucianism and mediating factors and subsequently between mediating factors and work ethic.

5.4. IMPLICATIONS FOR THEORY

The hypothetical model (Figure 4) was tested in two groups: a Caucasian group and a Confucian orbit group. The resulting models (See Figure 6 & 7) have both theoretical and practical implications, particularly to develop the Confucian pedagogical approach to create individuals' work ethic. The identification of these drivers can be used as groundwork for theoretical or strategy-based improvement of work ethics with respect to discipline and its affects.

As the model outlined at the onset of this study, the literature has pointed in the direction of linking Confucianism (face saving and reciprocity) and work ethic. What was less clear, however, was the specific association of Confucianism and work ethic mediated by respect and discipline (Confucian pedagogical approaches). This study has contributed to a better understanding by empirically verifying that indeed dimensions of Confucianism are significantly associated with work ethic when it is mediated by Confucian pedagogical approaches. As such, the study establishes the importance of pedagogical approaches that relate to work ethic since the study showed that for respect and discipline are essential. Specifically, the study also demonstrated that Confucianism was not directly linked to work ethic in the models but it was significantly linked to work ethic when it mediated by Confucian pedagogical approaches.

Relating back to the theory, these findings also support Baumann et al. (2016) who have established that pedagogical approach does associate with performance and ultimately work ethic. Moreover, they argued that Asian pedagogical approaches drive stronger work ethic compared to those of Western education. In line with Baumann et al (2016), this study contributes to the importance of mediating drivers in determining work ethic. The results of this study have given us clear evidence that students who respect their parents and teachers have a significantly stronger work ethic for both Caucasian and Confucian orbit groups. As such, this study clearly contributes to the theoretical argument since it has now established that respect is indeed positively associated with a strong work ethic. Therefore, while this study has demonstrated and now confirmed that Confucianism is strongly associated with a good work ethic. It can also be further argued that the pedagogical approaches with emphases

on respect are crucial for both Eastern and Western education.

The study established a hypothesised model that assumed discipline was a strong predictor of work ethic. Although respect is associated with work ethic in the Caucasian and Confucian orbit groups, if there is no strict discipline associated with a call for respect in educational institutions (again, discipline is not significant for Caucasian group), then the impact on work ethic is not likely to be similar. The Confucian approach to education, prominent in East Asia, contains not only the passing on of knowledge and skills, but also has an inherent focus on character building, including respectful attitudes and ethical behaviour (Rooney, McKenna, & Liesch, 2010). These East Asian values of discipline have been overlooked in the literature, which has focused on authoritarian discipline, but discipline also plays an important role as a key for academic success in general (Cohen & Romi, 2010; Pellerin, 2005). As such, a new theory has emerged from this study in the framework of the proposed and tested work ethic model. This study has established that the Confucian pedagogical approach explains work ethic when it is conceptualised as being mediated by discipline.

In the final theoretical analysis, the follow Bourdieu's (2011) call to build a bridge between education and work ethic. He noted that schooling is made for early domestic education by building positive value to create cultural capital. Indeed, the finding of the study showed that the Confucian orbit model demonstrated linkages between Confucian pedagogical approaches and work ethic therefore, which explained the higher and substantial work ethic (45.3%) compared to Caucasian group (36%). Moreover, the Confucian model showed it was fully mediated by both respect and discipline. This study clearly contributes to this theoretical argument since the study have now established that a Confucian pedagogical approach has stronger work ethic than the Western education approach (Altbach, 1998) .

5.5. IMPLICATIONS FOR PRACTICE

From a practical perspective, for parents, teachers, professors and education policy makers, this study has found evidence that the Confucian pedagogical approach, which emphasises respect and discipline, has a significant influence on the work ethic of individuals. Therefore, schools should maintain Confucian pedagogical approaches that associate with work ethic. As this study shows via a comparison of a Caucasian and Confucian orbit groups, the Confucian pedagogical approach, with respect and discipline are linked to higher work ethic. Therefore, for Western schools that have a lower Confucian pedagogical approach may need to think of different ways of building students' work ethic based on the finding of this study. However,

the school system and pedagogical approaches are not necessarily completely new, they could be developed from the 'old', but with the openness of systems (Selznick, 1996).

Subsequently, policy-makers in charge of educational institutions should take consideration of the appropriate pedagogical approach, as it will influence the work ethic of their country's future workforce. Additionally, these guidelines and approaches should be in line with the environments where children and youth are influenced, including the home, extra-curricular groups as well as schools and universities. There is no doubt this approach will be influential in increasing a country's level of global competitiveness.

The study of finding also shows that respondents from Confucian orbit countries were more disciplined than Caucasian group. In this study, most of respondents from 'Confucian orbit' culture have arrived in Australia less than 2 years ago, and their average age was between 18 to 24 years. Most of these respondents said that they had spent their formative years back in their home country (China, Hong Kong, Japan, Korea, Singapore and Taiwan). As such, this study has established that education background directly relates to their higher levels of discipline. Students who had been educated in China, Hong Kong, Japan, Korea, Singapore or Taiwan had recognised their teachers' expectations of what is appropriate behaviour in class. Respect for teachers in that part of the world was basic and a fundamental virtue that may have been learned from their parents and family.

Ding and his colleagues (2008) study also demonstrated that the majority of Chinese teachers (65.6%) do not think that classroom management is a great concern. They perceive 'daydreaming' (i.e. student seemingly listens to teachers, but they are not fully focused or looking out of the window) to be the most frequent and troublesome misbehaviour. In contrast, in past studies of Western settings, teachers have the most concern about 'talking out of turn'. In detail, only 34.4% of the Chinese teachers have problem with classroom management while in the Western setting, 55–65% of teachers reported this problem (Little, 2005; Wheldall & Merrett, 1988). Considering that the average Chinese class size in this study is much larger than Western classes, this result seems even more at odds with the other studies.

Ultimately the outcome of education is determined by the role of the teacher and is also influenced by discipline style (Pellerin, 2005). Thus, it is important for the teacher to focus on good discipline and manage misbehaviour of students in the classroom. The nature of misbehaviour depends on the teacher's perception and interpretation. However, misbehaviour can be seen as any behaviour that threatens the flow of academic performance in a particular

context (Türnüklü & Maurice, 2001). Students show better performance when teachers create a disciplined atmosphere. Where students listen to teachers, where noise levels in the classroom are low and they do not have to wait to start class and teach. Good discipline allows students to work well and not surprisingly, this ultimately leads to better academic performance and work ethic (Baumann & Krskova, 2016; Muscott, Mann, & LeBrun, 2008).

The finding of this study therefore suggests a need for better discipline in everyday school operations. It is recommended that schools should emphasise how students behave in school, including their relationships between teachers, students, family and friends. There are already voices concerned about young children's and student's misbehaviour in classroom, and there is no doubt of a need for discipline from parents and teachers. Thus, the findings support that in general, implementing good discipline in schools may enhance students' performance as well as create a work ethic that allows for better learning.

5.6 LIMITATIONS AND SUGGESTIONIS FOR FUTURE RESEARCH

As this study is exploratory in nature, it is anticipated to have some limitations. These are addressed below, as well as suggestions for future research.

First, this study investigates two mediators – respect and discipline – to examine the relationship between Confucianism and work ethic. Because this study looked at pedagogical approaches that emphasised respect and discipline to consider the impact on individuals' work ethic. However, this study acknowledges that there are many other factors that could contribute to a strong work ethic such as individuals' personality, characteristics and motivation. Therefore, further research could expand on this study by linking various mediators of professional workforces such as organisational culture and specific situations of individuals. In addition, future research could investigate factors likely to moderate the relationship between Confucian values and work ethic. For example, moderating effects could be expected from parenting style (e.g. Baumrind's parenting typology: permissive, authoritarian and authoritative) and specific comparisons between ethnicities.

Second, this study used two Confucian values, face saving and reciprocity, from Monkhouse et al (2013). Initially, five dimensions were tested for factor analysis. However, as EFA estimated a low reliability, three dimensions: humility, group orientation and hierarchy were not used for SEM. There may be additional dimensions for Confucian values that relate to work ethic. For example, Baumann and Winzar (2017) noted relative values of Confucianism

as altruism, customs & rules, loyalty & respect, filial piety, modesty, virtuous concern for others, value of knowledge and wisdom, merit over inheritance. Therefore, future research could investigate values likely to influence the relationship between Confucianism and work ethic.

Third, this study regarded students who have East Asian culture background as a homogeneous group, whose behaviours are influenced by Confucianism. As Confucianism has such a long history, it has also evolved over time. For example, the political and economic separation of China, Hong Kong and Taiwan has developed slightly different Confucian values within each of these countries (Lahtinen, 2015). Similarly, Confucian values vary in many ways within Confucian orbit countries such as Japan, South Korea, Singapore and Vietnam. Confucian values, indeed, have changed in their society over time although Confucianism is originally from Mainland China. Tung (1996) noted that ‘culture is not static; rather it evolves over time’ (p. 244). This is acknowledged within the literature, as well as in the findings from this study’s assessment of Confucianism between ethnic groups.

Lastly, this study acknowledges that there is a limitation in using self-reporting as a measure of work ethic. As the majority of respondents (77.3%) were 19-24 year old university students, the findings associated with the Leisure dimension of Work Ethic may have been influenced by a higher leisure ethic than amongst working professionals. Moreover, many of the participant students had just started campus life. It may not be surprising then, that they preferred to have more time to enjoy leisure activities. Although some may have part time jobs in addition to their studies, they generally do not have family commitments, have shorter workdays and have a greater focus on social activities of university life. This may have useful implications in organisations that are targeting new graduates for recruitment.

CHAPTER 6: CONCLUSION

This study distinguishes between individuals' Confucian values and how they impact the work ethic of those individuals. A hypothetical model was developed and tested using SEM in two groups, a Caucasian group and a 'Confucian orbit' group. This model explained the role of face saving and reciprocity in creating work ethic, mediated by pedagogical approaches. The resulting models for the two groups established that there are important differences between ethnicity. While both face saving and reciprocity were identified as drivers of a strong work ethic for the Confucian orbit group, only face saving was identified as an influencer of work ethics for the Caucasian group. More importantly, only the Confucian orbit group explained individuals' work ethic through the two mediating factors, respect and discipline. This distinction between Caucasian and Confucian orbit group, while initially surprising, can be attributed to the individuals' commitment to their own work ethic.

From this, the study has demonstrated three unique contributions. First, the study determined how Confucianism affects an individual's work ethic. For Confucianism, in particular, face saving and reciprocity were tested for the hypothetical model and a link was shown between these two values and individuals' work ethic. Second, the study demonstrated the effects of respect and discipline, representing a Confucian pedagogical approach, as mediators between Confucianism and work ethic.

Third, this study demonstrates differences between the two ethnic groups, showing how relationships are different between Confucianism and work ethic. In comparison, the Confucian orbit group, which has a Confucian pedagogical approach, explained stronger work ethic than the Caucasian group. However, discipline was only associated with work ethic in the Confucian orbit group. This leads to the conclusion that discipline is significantly associated with a stronger work ethic.

These results point towards a paradigm where Confucian pedagogical approaches that emphasise respect and discipline play a crucial role in explaining individuals' work ethic. For education policy, this study points towards the importance of establishing and/or maintaining Confucian pedagogical approaches. If students are educated in how and why they should respect their parents and teachers as well as how they should behave both at home and school, this may then lead to improvements in a students' overall work ethic.

This study also suggests that a Confucian pedagogical approach could be used in establishing work ethic, due to the demonstrated effects respect and discipline have in driving an

individual's work ethic. This distinction highlights that there are unique patterns that Confucianism has revealed with significant relationships between discipline and work ethic. In practice, the challenge will be for both East and West to build work ethic through adopting Confucian pedagogical approaches.

APPENDICES

APPENDIX A: Participation Information & Consent Form



Participant Information and Consent Form

You are invited to participate in a research project, which is looking into the perceived Confucian values toward work ethic and academic performance. This research also aims to understand how and to what extent the underlying culture of respect, discipline and competitiveness can influence the level of work ethic and academic performance among university students.

This research project is being conducted by Seung Jung Yang to meet the requirements for the degree of Master of Research, under the supervision of Associate Professor Chris Baumann (+61 (2) 9850 8551; chris.baumann@mq.edu.au) of the Department of Marketing and Management.

The survey will involve providing your agreement or disagreement with statements your perception in cultural values and experience in education and parenting style as well as questions on personal background. Most questions will be answered on a seven-point scale. This survey should take approximately 15 minutes to complete. Participation is entirely voluntary, and responses will be confidential to the degree permitted by the technology being used, including the use of password protected files and data storage in a securely locked cabinet unavailable to public access. If you elect to volunteer, you are required to answer all questions in the survey. Submission of the survey will be interpreted as your informed consent to participate, and that you affirm that you are at least 18 years of age.

A summary of results can be obtained by email request (please request to Co-Investigator, Seung Jung Yang: seung-jung.yang@hdr.mq.edu.au).

Please print or save a copy of this page for your records.

***I have read the above information and agree to participate in this research project.**

The ethical aspects of this study have been approved by the Macquarie University Human Research Ethics Committee. If you have any complaints or reservations about any ethical aspect of your participation in this research, you may contact the Committee through the Director, Research Ethics & Integrity (telephone (02) 9850 7854; email ethics@mq.edu.au). Any complaint you make will be treated in confidence and investigated, and you will be informed of the outcome.

APPENDIX B: Questionnaire

This survey consists of 8 parts. From the part 1 to 5, please indicate to what extent you *agree* or *disagree* with the following statement as they apply to you.

1 Strongly Disagree (SD)	2 Disagree	3 Somewhat Disagree	4 Neither Agree/Disagree (N)	5 Somewhat Agree	6 Agree	7 Strongly Agree (SA)
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For the part 6, 7 and 8, please specify answers in a blank space or mark one with ✓. Please answering as honestly as possible for all the questions. Thank you for taking the time and your thought to complete this survey. We appreciate your participation!

Part 1: Assessment of Work Ethic

We would like to ask you a few questions about various aspects of your work ethic.

	SD			N			SA	
I would prefer a job that allowed me to have more leisure time.	1	2	3	4	5	6	7	
I experience a sense of fulfilment from working.	1	2	3	4	5	6	7	
I schedule my day in advance to avoid wasting time.	1	2	3	4	5	6	7	
Working hard is the key to being successful.	1	2	3	4	5	6	7	
Having a great deal of independence from others is very important to me.	1	2	3	4	5	6	7	
Things that you have to wait for are the most worthwhile.	1	2	3	4	5	6	7	
One should always do what is right and just.	1	2	3	4	5	6	7	
I enjoy working hard.	1	2	3	4	5	6	7	

Part 2: Assessment of Personal Values

We would like to ask you a few questions about various aspects of your personal values.

	SD			N			SA	
I am concerned with not bringing shame to myself.	1	2	3	4	5	6	7	
I am concerned with not bringing shame to others.	1	2	3	4	5	6	7	
I pay a lot of attention to how others see me.	1	2	3	4	5	6	7	
I am concerned with protecting the pride of my family.	1	2	3	4	5	6	7	
I feel ashamed if I lose my face.	1	2	3	4	5	6	7	

I avoid singing my own praises.	1	2	3	4	5	6	7
I try not to openly talk about my accomplishments.	1	2	3	4	5	6	7
I like to draw others' attention to my accomplishments.	1	2	3	4	5	6	7
Being boastful is a sign of weakness and insecurity.	1	2	3	4	5	6	7
I only tell others about my achievements when I am asked to.	1	2	3	4	5	6	7
I recognize and respect social expectations, norms and practices.	1	2	3	4	5	6	7
When I am uncertain how to act in a social situation, I try to do the same as what others do.	1	2	3	4	5	6	7
I usually make decisions without listening to others.	1	2	3	4	5	6	7
When I buy the same things my friends buy, I feel closer to them.	1	2	3	4	5	6	7
If there is a conflict between my interest and my family's interest, I will put priority on mine.	1	2	3	4	5	6	7
I am happy if people look up to me.	1	2	3	4	5	6	7
We have a vertical order in the society that we should respect.	1	2	3	4	5	6	7
A person with high personal achievements is considered to have high social standing.	1	2	3	4	5	6	7
Wealth and power are becoming important determinants of social status.	1	2	3	4	5	6	7
The practice of 'give and take' of favours is an important part of social relationships.	1	2	3	4	5	6	7
I feel a sense of obligation to a person for doing me a favour.	1	2	3	4	5	6	7
It is bad manners not to return favours.	1	2	3	4	5	6	7
When I receive a big favour, I try to go an extra mile to do something nice in return.	1	2	3	4	5	6	7
When I buy a gift to say thank you to someone, I try my best to make sure the person will appreciate it.	1	2	3	4	5	6	7

Part 3: Assessment of level of competitiveness

We would like to ask you a few questions about your thought on competitiveness.

	SD	N				SA	
Winning in competition makes me feel more powerful as a person.	1	2	3	4	5	6	7
I find myself being competitive even in situations, which do not call for competition.	1	2	3	4	5	6	7
I compete with others even if they are not competing with me.	1	2	3	4	5	6	7
When my competitors receive rewards for their accomplishments, I feel envy.	1	2	3	4	5	6	7
I find myself turning a friendly game or activity into a serious contest or conflict.	1	2	3	4	5	6	7
It's a dog-eat-dog world. If you don't get the better of others, they will surely get the better of you.	1	2	3	4	5	6	7
If I can disturb my opponent in some way in order to get the edge in competition, I will do so.	1	2	3	4	5	6	7
I really feel down when I lose in athletic competition.	1	2	3	4	5	6	7
I like the challenge of getting someone to like me who is already going with someone else.	1	2	3	4	5	6	7
I can't stand to lose an argument.	1	2	3	4	5	6	7
Failure or loss in competition makes me feel less worthy as a person.	1	2	3	4	5	6	7
People who quit during competition are weak.	1	2	3	4	5	6	7
Competition inspires me to excel.	1	2	3	4	5	6	7

Part 4: Assessment of level of respect and discipline

We would like to ask you a few questions about various aspects of respect and experience during your school life before starting university.

	SD	N				SA	
People should always respect his or her teacher.	1	2	3	4	5	6	7
People should be polite at all times.	1	2	3	4	5	6	7
People should have respect for anyone older than they are.	1	2	3	4	5	6	7
In the classroom, I see the teacher as somebody whose authority should not be questioned.	1	2	3	4	5	6	7
I see knowledge as something that the teacher should pass on	1	2	3	4	5	6	7

to me rather than something that I should discover myself.							
I expect the teacher (rather than myself) to responsible for evaluating how much I have learnt.	1	2	3	4	5	6	7
My teachers recognize appropriate behavior of individual students or the class (e.g., reward individual students who behave properly).	1	2	3	4	5	6	7
My teachers punish students who misbehave, increasing the level of punishment if necessary (e.g., increase the level of punishment if a misbehaving student stops when told, but then does it again).	1	2	3	4	5	6	7
My teachers discuss with students the impact of their behaviour on others, and negotiate with students on a one-to-one basis (e.g., discusses students' behavior with them to allow them to figure out a better way to behave in future).	1	2	3	4	5	6	7
My teachers involve students in classroom discipline decision making (e.g., organize the class to work out the rules for good behavior).	1	2	3	4	5	6	7
My teachers hint about students' unacceptable behavior without making a demand (e.g., describe what students are doing wrong, and expect them to stop).	1	2	3	4	5	6	7
My teachers use aggressive techniques (e.g., yell angrily at students who misbehave).	1	2	3	4	5	6	7

Part 5: Student wellbeing

	SD		N				SA
I consider myself a happy person.	1	2	3	4	5	6	7
I have felt cheerful and in good spirits.	1	2	3	4	5	6	7

1 Extremely Bad	2 Moderately Bad	3 Slightly Bad	4 Neither Bad/Good	5 Slightly Good	6 Moderately Good	7 Extremely Good				
How would you describe your general health?				1	2	3	4	5	6	7

Part 6: Assessment of parenting Style

We would like to ask you what is the closest parenting style to your parents among 3 different parenting styles. Please mark the appropriate column for mother and father.

Parenting style	Example	Mother	Father
Permissive	My mother/father has always felt that what children need is to be free to make up their own minds and to do what they want to do, even if this does not agree with that their parents might want.		
Authoritarian	As I was growing up my mother/father let me know what behaviour she expected of me, and if I didn't meet those expectations, she/he punished me.		
Authoritative	As I was growing up I knew what my mother/father expected of me in my family, but I also felt free to discuss those expectations with my mother/father when I felt that they were unreasonable.		

Part 7: Demographics/ Ethnicity

What is your gender?	<input type="checkbox"/> Female <input type="checkbox"/> Male
What year were you born?	
In which country were you born?	
If you were born overseas, how long have you been in Australia?	

Which country did you spend most of your formative years (10 to 18 years of age)?	
What is your ethnic background, regardless of your citizenship?	<p style="text-align: right;">*Please specify Ethnic origin</p> <p><input type="checkbox"/> Anglo-Saxon: (e.g.English)_____</p> <p><input type="checkbox"/> East European: (e.g.Russian)_____</p>

	<input type="checkbox"/> North and West European:(e.g. German)_____ <input type="checkbox"/> Southern European:(e.g.Greek) _____ <input type="checkbox"/> West Asian&North African:(e.g.Lebanese) _____ <input type="checkbox"/> South Asian:(e.g. Indian) _____ <input type="checkbox"/> South East Asian: (e.g.Indonesian) _____ <input type="checkbox"/> North East Asian : <input type="checkbox"/> Chinese <input type="checkbox"/> Japanese <input type="checkbox"/> Korean <input type="checkbox"/> Pacific: (e.g.Tongan)_____ <input type="checkbox"/> African:(e.g.Nigerian)_____ <input type="checkbox"/> Other: _____
My father's ethnicity is (Please specify the country)	
My mother's ethnicity is (Please specify the country)	

Part 8: Academic performance

We would like to ask you about your academic performance. This information will only use for research data confidentially.

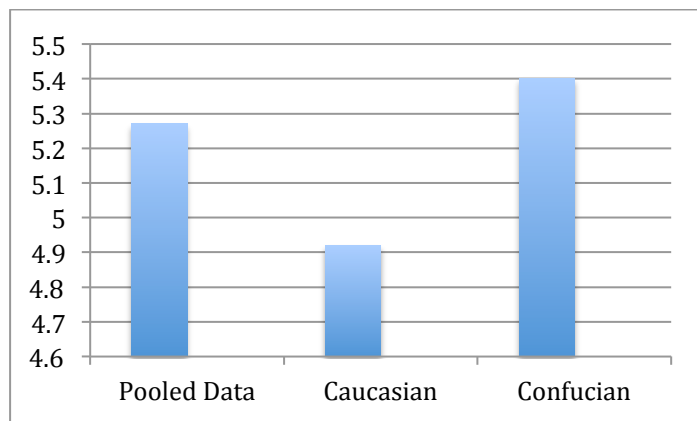
What is your GPA?	/4.00
What was your Australian Tertiary Admission Rank (ATAR) or Tertiary Entrance Rank (TER)?	/100

APPENDIX C: Measures, scale items and reliability estimates

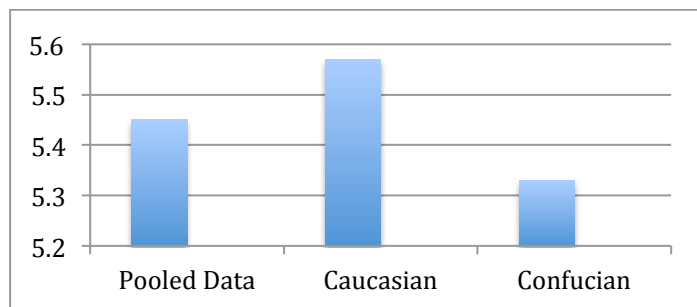
	Cronbach's Alpha (≥ 0.7)
<i>Face saving</i>	0.718
1. I am concerned with not bringing shame to myself.	
2. I am concerned with not bringing shame to others.	
3. I pay a lot of attention to how others see me.	
4. I feel ashamed if I lose my face.	
<i>Humility</i>	0.721
1. I avoid singing my own praises.	
2. I try to not to talk openly about my accomplishments.	
<i>Reciprocity</i>	0.765
1. I feel a sense of obligation to a person doing me a favour.	
2. It is bad manners not to return favours.	
3. When I receive a big favour, I try to go an extra mile to do something nice in return.	
<i>Respect</i>	0.745
1. The student should always respect his or her teacher.	
2. People should be polite at all times.	
3. People should have respect for anyone older than they are.	
<i>Discipline</i>	0.747
1. My teachers recognise appropriate behaviour of individual students or the class (eg, reward individual students who behave properly)	
2. My teachers discuss with students the impact of their behaviour on others, and negotiate with students on a one-to-one basis (eg, discuss students' behaviour with them to allow them to figure out better way to behave in future.)	
3. My teachers involve students in classroom discipline decision making (eg, organise the class to work out the rules for good behaviour)	
<i>Work Ethic</i>	0.717
1. I experience a sense of fulfilment from working.	
2. Working hard is the key to being successful.	
3. Things that you have to wait for are the most worthwhile.	
4. One should always do what is right and just.	
5. I enjoy working hard.	

APPENDIX D: The average face saving, reciprocity, respect, discipline and work ethic

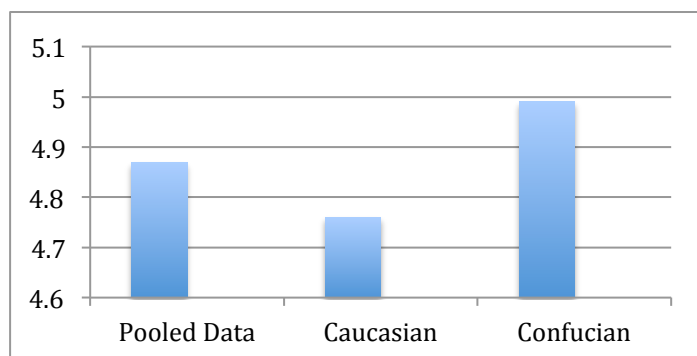
Average Face Saving Data



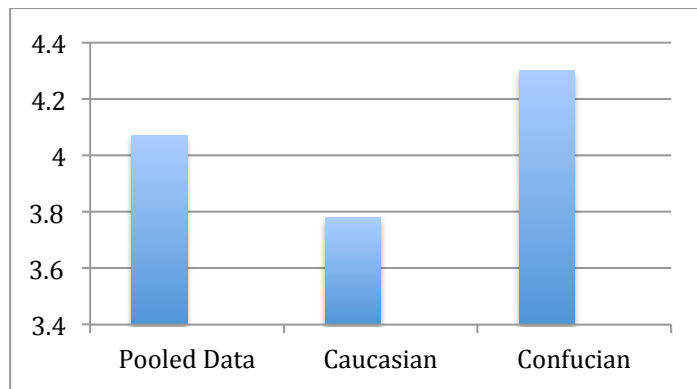
Average Reciprocity Data



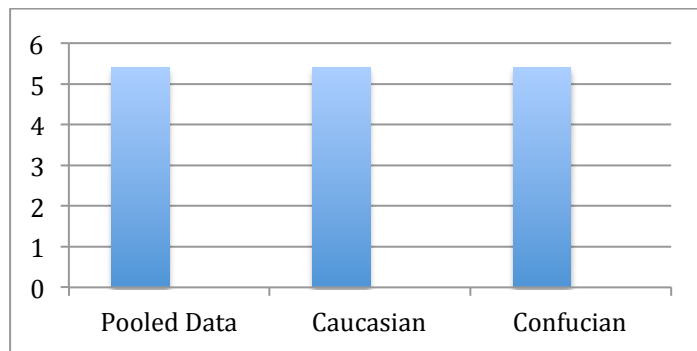
Average Respect Data



Average Discipline Data



Average Work Ethic Data



APPENDIX E. Descriptive statistics of detentions

Dimension	Pooled Data				Caucasian Group				Confucian Orbit			
	Min	Max	Mean	SD	Min	Max	Mean	SD	Min	Max	Mean	SD
Face Saving	1	7	5.27	1.313	1	7	4.92	1.396	1	7	5.4	1.229
Reciprocity	1	7	5.45	1.256	1	7	5.57	1.060	1	7	5.33	1.060
Respect	1	7	4.87	1.309	1	7	4.76	1.262	1	7	4.99	1.141
Discipline	1	7	4.07	1.442	1	7	3.78	1.349	1	7	4.3	1.35
Work Ethic	1	7	5.4	1.194	1	7	5.4	1.269	1	7	5.4	1.199

APPENDIX F: Ethics Approval

Re application entitled: The role of Confucianism in driving work ethic

Reference Number: 5201600403

The above application was reviewed by the Faculty of Business & Economics Human Research Ethics Sub Committee. Approval of the above application is granted, effective 29/05/2016. This email constitutes ethical approval only.

This research meets the requirements of the National Statement on Ethical Conduct in Human Research (2007). The National Statement is available at the following web site:

http://www.nhmrc.gov.au/_files_nhmrc/publications/attachments/e72.pdf.

**The following personnel are authorised to conduct this research: Associate Professor Chris Baumann
Mrs Seung Jung Yang**

NB. STUDENTS: IT IS YOUR RESPONSIBILITY TO KEEP A COPY OF THIS APPROVAL EMAIL TO SUBMIT WITH YOUR THESIS.

Please note the following standard requirements of approval:

1. The approval of this project is conditional upon your continuing compliance with the National Statement on Ethical Conduct in Human Research (2007).
2. Approval will be for a period of five (5) years subject to the provision of annual reports.

Progress Report 1 Due: 29th May 2017

Progress Report 2 Due: 29th May 2018

Progress Report 3 Due: 29th May 2019

Progress Report 4 Due: 29th May 2020

Final Report Due: 29th May 2021

NB. If you complete the work earlier than you had planned you must submit a Final Report as soon as the work is completed. If the project has been discontinued or not commenced for any reason, you are also required to submit a Final Report for the project. Progress reports and Final Reports are available at the following website:

http://www.research.mq.edu.au/for/researchers/how_to_obtain_ethics_approval/ human_research_ethics/forms

3. If the project has run for more than five (5) years you cannot renew approval for the project. You will need to complete and submit a Final Report and submit a new application for the project. (The five year limit on renewal of approvals allows the Committee to fully re-review research in an environment where legislation, guidelines and requirements are continually changing, for example, new child protection and privacy laws).

4. All amendments to the project must be reviewed and approved by the Committee before implementation. Please complete and submit a Request for Amendment Form available at the following website:

http://www.research.mq.edu.au/for/researchers/how_to_obtain_ethics_approval/ human_research_ethics/forms

5. Please notify the Committee immediately in the event of any adverse effects on participants or of any unforeseen events that affect the continued ethical acceptability of the project.

6. At all times you are responsible for the ethical conduct of your research in accordance with the guidelines established by the University. This information is available at the following websites:

<http://www.mq.edu.au/policy/>

http://www.research.mq.edu.au/for/researchers/how_to_obtain_ethics_approval/ human_research_ethics/policy

If you will be applying for or have applied for internal or external funding for the above project it is your responsibility to provide the Macquarie University's Research Grants Management Assistant with a copy of this email as soon as possible. Internal and External funding agencies will not be informed that you have approval for your project and funds will not be released until the Research Grants Management Assistant has received a copy of this email.

If you need to provide a hard copy letter of approval to an external organisation as evidence that you have approval, please do not hesitate to contact the FBE Ethics Committee Secretariat, via fbe-ethics@mq.edu.au or 9850 4826. Please retain a copy of this email as this is your official notification of ethics approval.

Yours sincerely,

Dr Nikola Balnave

Chair, Faculty of Business and Economics Ethics Sub-Committee

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